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San Francisco State Normal School

BULLETIN No. 2

The Essentials of Geography

IN THE

Primary and Grammar Grades

BY

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LOS ANGELES
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PREFACE.

This Bulletin is issued primarily for the use of the student-teachers in our Training School as a general outline and plan of geography teaching. It will also be of service to our graduates and to other teachers in the public school work.

Its purpose is to serve as a practical escape from the prevalent method of text-book memorizing which seems to have settled upon geography teaching by virtue of the ease by which lessons may be assigned and courses of study mechanically arranged, without serious regard to the educational results. The attempt to encompass within the covers of a single text the immense and varied materials of geography knowledge is manifestly impossible. Necessarily this knowledge is so hopelessly condensed and the language so general and vaguely abstract that mere memorizing can give nothing but words and conveys little real intelligence to the mind of the average pupil.

The main points of divergence upon which the work outlined in this Bulletin throws emphasis are :

1. The acquirement of visual images of the maps of the world instead of mere memory of words concerning these maps.

2. The acquirement of a mass of concrete and interesting details and reactionary feelings relative to the areas and countries of the earth. This material may be acquired by the pupil either from books of travel, read by the pupil himself, or told to him by the teacher. This material precedes the definite learning of the few essentials and general facts which may be deduced from these varied stories and descriptions. Once the details are covered, the essential facts should be given with as much insistence upon memory drill as now is put upon the texts without this preliminary cultivation.

3. The teaching of physical conditions by experimental means and in connection with the special area studied.

This plan may be used in two ways: In schools provided with sufficient library and supplementary books, the topical system of reading by the pupils may be followed. In schools which are not thus equipped, or only partially equipped, the teacher should do the reading and then tell the stories to her pupils. The materials for the experimental work in physical geography will be found simple and inexpensive.

The article in Chapter III, entitled "Pictured Relief," by Walter J. Kenyon, was taken from the New York School Journal by permission. With this exception the first four chapters were written by Frank F. Bunker. The last chapter is by Effie B. McFadden, supervisor of physical geography.

May, 1903.

CHAPTER I.

THE ESSENTIALS OF GEOGRAPHY.

There is a very general movement among educational leaders and thoughtful teachers looking toward the evaluation of the studies usually included in our curricula. We are beginning to realize that under the impulse given teaching by the so-called New Education the course of study is overcrowded. We are dissipating our energies and the energies of our children by virtue of too many subjects. The consequence is that some of those studies, which time and experience have shown to be fundamental and necessary in the training of children, have been neglected to a considerable degree. The inevitable reaction has set in, and as a result, teachers and supervisors are carefully examining the claims of these several studies with a view to an intelligent and conservative pruning of the course.

This tendency toward the elimination of those studies which are not *most* essential for the sake of more efficient work in the teaching of those which *are*, has not stopped with the mere consideration of the relative value of the several studies as *wholes*; but this critical examination has extended to the details usually comprehended in the text-books of those subjects considered most essential. Thus, for example, it is universally agreed that arithmetic deserves a place in the curriculum. But the notion is also becoming quite general that the teaching of exchange, of stocks, of alligation, of cube root, does not belong in the arithmetic of the grammar grades. Further than this, it is pretty generally agreed that the subject of fractions should be taught to children. But it is also becoming a prevalent notion that it is a waste of valuable time to have children change mixed numbers of large dimensions to improper fractions. So this process of evaluation has not stopped with the subjects of the school curriculum as wholes, but rightly extends to the most minute details of these subjects.

Geography is coming to be recognized as the study of Man, his home, and his activities; and as such it deserves a much larger place in our school work than it has ever been accorded. Along with this change in our estimate of the value of Geography, there has come an epoch-making shift in the matter of the details which should be presented and in the method of their presentation. Instead of blindly following the older texts, instead of sitting back in our chairs as teachers and idly running our fingers down the dry and sterile wastes of map questions, as we solemnly propound them to our children, we call each fact in question and ask, "Is this fact important enough to justify us in having our children spend time in its mastery?" We are asking ourselves, "Is it really essential for a child to be able to say as a bit of verbal memorization that Nebraska is bounded on the north by

South Dakota, on the east by the Missouri River, on the south by Kansas and Colorado, and on the west by Colorado and Wyoming?" We are asking, "Is it essential after all that a child should be able to locate Timbuctoo or to name the tributaries of the Amazon River?" While it is true that these are facts, yet we ask, "Are they facts which children, or for that matter adults, *most* need to know?"

On the other hand, is it not much more significant for California children, at any rate, to learn in a constructive way that Nebraska lies in a region of sufficient rainfall for successful farming and stock-raising and that it has excellent means for the cheap transportation of its products by virtue of its rail and water way facilities? Is it not much more vital and necessary that the child have associated with the Sahara region of Africa a feeling for its hot, dry climate; its sparse population and vegetation; its few oases; and its caravans of camels? From the standpoint of culture and general information, is it not essential that the child's picture of the Central region be a picture of dense, tropical forests; of wild, uncivilized, primitive cannibals and pygmies? Should not this region be to him a region of the wonderful explorations of Stanley and Livingston and a region producing the world's supply of ivory? Is it not of greater value that a child build up a feeling for the antiquity of Egypt and for the great and mighty place it has occupied, and the noble part it has played in the history of the progress of civilization? I ask, is it not better for the teacher to spend her time and the time of her children in building up these associations with their geographical areas than to learn as an effort of the special memory that the aforesaid Timbuctoo is a town of 5,000 negroes, ten miles north of the Niger River, near the Sahara Desert?

Geography treats of the elements of many of the sciences. It draws its data from astronomy, from anthropology, from ethnology, from ornithology, from meteorology, and from geology, not to mention others. Among the million and one interesting details which might be taken from these sciences and legitimately included under the term Geography, it is not to be wondered at that many non-essentials have crept into our school treatment of this most important subject. I presume it is in just this matter of the separation of the essential from the non-essential that teachers feel least confidence in themselves; and being hazy, confused, and uncertain in their own minds, the natural tendency is to fall back upon the traditional and authoritative treatment to be found in the several text-books of Geography.

It will help us in looking at this question of "What is essential in Geography?" to consider geography in its twofold aspect: (1) its formal elements; (2) its content or cultural elements.

In the advanced text of the California State Series Geography, there are about two thousand geographical names; and included in the maps there are approximately seven thousand more. Of this number the ordinarily well-informed man could probably step to a series of outline maps and accurately locate no more than four or five hundred. As a child in school his list was very much larger, but upon leaving he straightway forgot the most of it. As Mr. Redway says: "The average pupil on leaving the gram-

mar school undoubtedly possesses a much larger stock than this—and promptly proceeds to forget all but about one hundred, or possibly, half as many more. He then adds to his stock the names that may be called the ‘unexpected,’ that is, the names that come into use through discovery, political change, industrial movement, or change of environment.” It would seem to be a waste of time to require our children for the sake of the “unexpected” to spend their time in the indiscriminate mastery of these nine thousand names.

Of this body of geographical map facts, from the standpoint of general, usable knowledge, the adult needs to know the location and situation of London, but he has little use for Timbuctoo. He needs to know New York, Chicago, St. Louis, San Francisco, but has little need for Milpitas or Deadwood City. He needs the Mississippi River, the Ohio, and in his own State, the Sacramento and the San Joaquin, rather than the Red River of the North or the Santa Marguerita of San Diego County. He needs these facts because that body of information which passes current and which affects the world and its people in a large and vital way has to do with New York and London, with the Mississippi and the St. Lawrence, with the Amazon and the Nile. So from the standpoint of those map facts which are common to people of general intelligence we could easily make a minimum list with respect to each continent which children should know and know perfectly.

With this idea of the essential formal elements in mind let us turn to South America. I presume that however much we disagree on minor points there will be no disagreement with the conclusion that the child should have the power of calling up before his mind’s eye the picture of the contour of South America enlivened with the following details: The principal water partings, the Andes Mountains, the Brazilian Highlands, and the Guiana Highlands, together with their corresponding drainage basins; the specific names and location of the Amazon, the Orinoco, and the La Plata rivers; the location of Pará, Rio Janeiro, Buenos Ayres, Santiago, and Lima. He should be able to point out and name at sight the several political subdivisions. Besides these formal facts to be gotten from the study of the map, he should be able to see South America in relation to the other continents of the world, to the chief water masses, and to the several zones of light. Whatever ~~map~~ information there is over and above this, and there is much besides which is required by your text, to my mind is *special* information, the learning of which, if it ever becomes necessary, should be entrusted to the initiative of the child, which initiative will be operative if the teacher has been careful to instill in him the necessity for constant reference to an atlas when he is reading.

This is the minimum list of geographical map facts which I have already suggested one needs of South America in order that he may be in touch with that body of knowledge of South America which to-day passes current. Not only for this reason are these facts needed, but for the further and important purpose of affording a foundation for work on what may be called the content side of geography teaching and study.

At this point, for the sake of clearness, I wish to summarize in a sentence or so what I have presented.

Our school curricula has become overcrowded, and in consequence the work of some subjects which all recognize as having proven their right to retention have suffered. This among other factors has set students to re-evaluating studies. This process of evaluation with a view to separating the essential from the non-essential is rightly being applied not only to studies as wholes, but to the details as well. Geography, because it includes the elements of many sciences, is peculiarly likely to contain much which is of less than the greatest value. In this consideration of what is essential, it is helpful to consider, first, its formal elements, by which I mean map facts mainly; and second, its content or cultural elements, by which I mean the associations one builds in and around the map facts. In connection with the formal elements, I pointed out that the basis of selection was to be found by putting and intelligently answering the following question: "What map facts does one need to know in order that he may be in touch with that body of current information which affects the world and its people in a significant way?" I answered this question in regard to South America.

I wish now to consider the more difficult, though no more important part of this question of essentials, that pertaining to the content or cultural elements.

To our minds our own State of California naturally breaks itself up into certain geographical areas, the characteristics of which differ. It has, speaking roughly, its valley region characterized by grain and fruit raising, and its mountain region characterized by lumbering and mining. So with South America, with Africa, or for that matter, with any of the other continents; each is naturally broken into certain characteristic areas. For our purpose, I presume those of South America may be said to be: the Amazon region; the Orinoco region; the La Plata region; the Andes region; and the Patagonian region. With each of these areas the popular mind has associated certain facts and certain feelings.

To illustrate this point, take the Amazon region. If I were to ask what the Amazon region means to you, I presume among other things you would tell me that to you it is a region of dense, tropical, luxuriant vegetation; that it has a hot, humid climate; that its chief product is rubber; that its forests are the homes of myriads of insects, of brilliant-plumaged birds, and of tree-climbing animals; and that it is a region sparsely populated by semi-civilized Indians and Negroes.

That the Amazon region has 50,000 miles of navigable waters draining 2,000,000 miles of area, and that the river itself inundates a region 1,000 miles long and 200 miles wide, are bits of special information readily accessible in any good encyclopedia, and therefore should not be required by the teacher.

By contrast let us turn to the Andes region. Again I ask, "What does the popular mind associate with the Andes region?" To most of us without special information this is a region of great altitudes and of precipitous slopes; a region whose climate ranges from the equatorial heat of the foot-

hills to the arctic cold of its mountain peaks; and a region characterized by its silver mines worked by natives who employ crude and wasteful methods.

That Chimborazo is 20,478 feet high or that Quito is exactly on that parallel of latitude which we call the equator are, again, bits of special information which can be found in any reference book on the region, and being special in their nature and application would better be eliminated from class-room work.

In like manner we might take the Sahara region, the Nile region, Japan, China, India, or the several characteristic areas of our own country. In the case of each it is possible to write down specifically some half dozen or more facts or feelings which fall outside the field of special knowledge and which in themselves constitute the measure, which I am seeking, by which to estimate the worth of the details of the recitation.

Then, since the facts and feelings which the popular mind has associated with their respective geographical areas constitute the essentials of given regions, and since a child, when he completes his school course, should have at least these definitely associated with their proper area, then it follows that we can judge each of the lesser details of the recitation in the light of its efficacy in establishing in the child's mind some one or more of these essential associations. Whether a teacher should spend time in having children tell the time-worn but I fear untrue story of the monkeys in the forests climbing cocoanut-trees and throwing the ripe fruit at the heads of passing travelers depends on whether this story will give them the basis for drawing some one or more of these characteristics as inferences. Whether the teacher should spend time in giving one lesson or a series of lessons on the boa-constrictor, on the blowgun of the natives, on the cow-tree of the forest, or on the process of gathering rubber depends, not upon the amount of interest which these details will command (they are all interesting if the teacher is interesting), but upon the grasp, either direct or by inference, they give the child on some one or more of the aforesaid essentials. If a given lesson or a specific detail of that lesson affords the basis for an inference on the part of the child in terms of one of these essentials, then that lesson or that detail should take its proper and worthy place in that teacher's scheme of lessons.

To summarize: From the standpoint of intelligently entering into that part of current information which is of significance there are a minimum number of formal map facts which children should know and know well. On the content side general intelligence recognizes that each natural geographical area has certain characteristics which differentiate it from every other area. This minimum list of map facts on the formal side, and these characteristics on the content side, constitute, to my mind, the essentials of the geography of the grammar grades, and being the essentials afford the teacher that basis for the selection of the details of her recitation which we have been seeking.

CHAPTER II.

GENERAL METHOD OF PRESENTING THE ESSENTIALS.

The classification of geography into its formal and content aspects, which I have already suggested, will be helpful in our consideration of this question of method. Observation of practice work shows that there is a method for the presentation of the formal features and another method for the presentation of the content elements. The one has to do with facts, and appeals to the memory; the other has to do mainly with the feelings, and appeals to the emotions. The method of handling the formal, whether in arithmetic, in history, or in geography, is the direct method of repetition; that having to do with the emotions is the indirect method of suggestion and inference. One can not do the work of the other. The error of modern pedagogy is in assuming that the latter method, the method of suggestion and inference, will secure *both* facts and feelings. There must be drill on the multiplication tables, and much of it. Automatic results here can never be gotten by inference, any more than can the paradigms of a foreign language. In each case special memory has a task to perform, in the accomplishment of which, repetition must of necessity be its chief ally. So with the essential formal elements of geography, they are as necessary to the further work of building up geography knowledge as are the tables to subsequent parts of arithmetic; and their permanent mastery, as with the tables and paradigms, depends directly on repetition with attention.

Mr. Redway, who discusses the teaching of geography with much common sense, says of this matter of memory work: "A certain amount of memory work in geography is absolutely necessary—quite as essential, in fact, as the learning of the various number combinations in arithmetic or the paradigmatic work in Latin. Geography deals with places, nations, terrestrial features, and processes; and their names and character must be learned before one can well discuss their mutual relations. A few well-meaning but misguided writers on educational topics pronounce such a proceeding (the giving of memory tasks) atrocious and cruel, but a moment's thought will suffice to show that memory tasks can be more easily accomplished between the ages of five and fourteen years than at any other time of life—far more easily than during the adult period."

The error of the older pedagogues, from the standpoint of method, in connection with this point of the acquisition of the essential formal elements, was not in the amount of repetition which they required, but in this that repetition with them was altogether a *verbal* matter. The whole emphasis of their teaching was placed on words and definitions. It sufficed if a boy could repeat in a given sequence the names of the New England or

Middle Atlantic states. For aught the teacher knew, he may have repeated these names as one would repeat a counting-out rigmarole of nonsense syllables. If one should ask such a boy to give the name of the state adjacent to Connecticut on the south, he would find him helpless, because the boy had never seen, except casually, a representation of the New England states in their true spacial relation to one another. In his mind the only relation they occupied was the wholly arbitrary, accidental, irrational order—the order which the grocer employs in itemizing a bill of goods—demanded by the teacher in verbal repetition. Children so taught are helpless in the presence of questions which differ in the slightest degree from those they have been accustomed to answering.

On the other hand, if a child carefully observes the map of the New England group; if he draws from memory an outline of these states, crude though this outline may be; if he writes into it from memory the names of the several states, rivers, and cities; in other words, if he builds for himself an approximately correct *mental image* of this or any other group, then that child can not only, if necessary, repeat their names in order, but he has the power to answer intelligently a hundred questions which might be put to him concerning the location and relation of these states, one to another. Verbal description has its limitations very sharply defined even in dealing with cultural material, but its limitations are very much more narrow in the field of the formal where the teacher has to do mainly with contour and spacial relation.

The chief purpose, then, of all this work in formal geography is to build up in the child's mind a good visual picture of the important land and water masses. The whole emphasis of the teacher in this connection should be laid on the getting of good mental images of the continents. The child should have the power of instantly calling up each continent before his mind's eye. He should be able to see at a glance its general contour; its chief political and physical subdivisions in relation to one another; its chief cities; and in addition, with a shift of the attention, each continent in this mental picture should take its proper place in relation to the other continents and water masses of the world. Every special method or device which does not lend itself to this end, should be discarded at once as inadequate, if not positively harmful.

The geography of the grades is coming more and more to be the study of Man, his home, and the forces and processes which affect him in some significant way. A study pursued with this end in view must of necessity, as Mr. Redway has pointed out in a passage already quoted, deal with the mutual action and interaction of places, of nations, and of physical features and processes. Naturally, as he suggests, before these mutual relations can be profitably discussed, their names, location, and character must be learned. This suggests what I wish to emphasize, that in the proper pedagogical sequence, work on the essentials having to do with the formal elements should precede in point of time that having to do with the cultural.

Teachers generally seem to feel that this is a reversal of the proper order of presentation. They hold that reality must precede any representation or

symbol of reality, just as in arithmetic they maintain that whatever be the topic under consideration, objective work, work with the concrete, must precede the formal. While the problem in geography is a different one, in that formal geography deals wholly with objects of sense perception and their relative positions in space, while arithmetic is an exact science based upon the reflections of the mind operating upon the products of sense perception and dealing with time relations, yet educators are just as incorrect in thus arbitrarily fixing the sequence of reality and symbol. A moment's reflection will convince one, I think, that after all the chief business of our life is concerned with the interpretation of symbols. A baby of two or three years will have picked up in some marvelous way literally hundreds of words and phrases, the meaning of which he does not know. The process of compassing the reality which they symbolize is a difficult and a lifelong task.

The other day I held Millet's "Angelus" before my baby, who has just seen her second summer. She looked at the picture for a moment, laughed, said, "Huh, Nannie (Mama), Papa!" and went on contentedly tearing into bits an unread copy of Scribner. She did not see in the sunken eye and stooped posture of the figures the hell of poverty and the tragedy of life. All she saw was a figure in a dress, which she called "Nannie," and another figure leaning on a stick, without a dress, which she called "Papa." Only in years to come, after she has tasted the sorrows as well as the joys of life, will she come out into a full understanding of the reality symbolized in the "Angelus." It is so with us all, whether we draw our illustrations from the field of music, from art, from literature, or from life generally—*symbols* are the concrete, the tangible, the accessible things; reality is the will-o'-the-wisp which dances on before.

Again, successful cultural work, as I shall point out in greater detail later, depends to a very large degree upon the reading ability of the child, which is not sufficiently developed to be of much service in this connection before the fifth or six year of school life. There are a few, but only a few, books of a geography nature which children of the third and fourth years can read. On the other hand, these years of the intermediate grades are those in which the child's memory for names and locations is most active. On grounds of school-room economy, then, if for no other of the reasons I have given, it is advantageous to begin with work in formal geography. It is by no means necessary to completely master the formal course as I outline it further on before beginning cultural work. The only point I am trying to make is that before a given bit of cultural work is presented, the necessary formal work which it requires shall have been gotten and gotten thoroughly. Only by so doing will it be possible to establish and make definite and useful those associations which I consider so essential.

The Arctic region to us is a region of ice, of snow, of Eskimo, of reindeer, of musk oxen and polar bear, not because we learned from some text that these were some of the characteristics of the region, but because of our general reading since leaving school. We have read the terrible story of the ill-fated expedition of Lieutenant Greeley. In imagination we have

experienced his hopes and his fears, his anxieties and his sufferings. We have seen him struggling on against almost insurmountable obstacles with indomitable courage, only to sink down hungry and exhausted, without hope, to die. We have followed with eager interest the work of his rescuers as they searched each bay and cove of that desolate and forbidding region. We have watched with bated breath their little steam launch as it worked its way slowly round the last ice-encased promontory. Our souls have thrilled as we have seen the look-out strain his eyes to the hills and eagerly cry to the commander in charge that he sees, waving in the distance, the stars and stripes. The scene of the meeting overcomes us. We can not repress the tears as we see those great, rough, bearded men fall into each other's arms and weep like children. In short, in imagination we travel their steps and live over their lives. Though we may forget many of the specific details of such a story, it is not possible ever to eradicate the feeling we get for the tremendous difficulties Nature has thrown in the way of her children in the Northern lands. It is in this manner that the popular mind, operating naturally, lays hold on the characteristics of the world's geographical areas. It is by the indirect method of suggestion and inference and not by the direct one of repetition, so necessary in the field of the formal, that these associations are built up. These characteristics, then, may be said to be the precipitate gotten from our reading of fiction, of traveler's tales, and of stories of adventure. If this has been not only the natural but the only effective way in which adults have built up these associations, then much more must it be true of children. Absorbed in the interest of the narrative, with their imaginations and emotions at full tide, is it to be wondered at that the impressions, the feelings, the associations which come indirectly and naturally are lifelong in their retention? Contrast with this method for a moment, the lifeless one imposed by the teacher who relies wholly on the text-book for her material, and no further plea for the placing of supplementary geography reading in the hands of the children will be needed.

The human mind does not stop with the mere description of man's physical environment; it ever seeks to lay bare causes and consequences. The thoughtless "Whys?" and "Hows?" of the child have been in the hands of the scientist the means of letting in a flood of light on the operation of physical forces. In consequence, we no longer, as did our forefathers, look upon the earth as an inert mass upon which life has been imposed by the will of a superior being. No longer do we look upon Man as existing separated from and uninfluenced by the same forces which raise up continents and tear down mountains. With each advance in our knowledge concerning the conditions which have brought men to their present high place, we get a clearer conception of the beauty and order of the system by which the processes of Nature have made men what they are. The geography which does not give a big place to the consideration of the manner in which climate, land forms, temperature, altitude, winds, erosion, not to mention other physical forces, have nursed and developed organic life, has missed its great opportunity and is not worthy a place in our school course.

It no longer suffices to learn that the Sahara is a region of desolate, sandy wastes; the child must with this description get a conception of the mighty forces which have caused its barrenness. It is not enough to learn that the Amazon is a region of tremendous rainfall, of dense vegetation, and of a tropical climate. Our children must get a glimpse of the beauty of the plan by which the winds and the mountains working together make it the region it is. It will not do, then, merely to *describe* the earth's physical features; their operations must be *explained*. It is this explanation which constitutes the work of Physical Geography, or Physiography, as it is coming to be called.

The order which we have suggested in the presentation of the formal and the content elements of geography is the order which should obtain in the teaching of the descriptive and physical aspects. As we have already shown, the formal naturally precedes the descriptive, so the descriptive rightly precedes the physical.

Before a child seeks the causes which make deserts he should know what a desert is, how it looks to the eye, its characteristics, and in what part of the world the most important are located. Before he searches out the causes of the fertility of certain valleys he should visit the Mississippi, either actually or by pictures and word descriptions. A moment's thought will convince one that a reversal of this order of presentation will result in abstract speculation, which to the child is in nowise related to fact or reality.

What we consider the essentials of geography, in its formal, descriptive, and physical aspects, together with the special methods which we have found of value in their treatment, will be found in succeeding chapters.

CHAPTER III.

SPECIAL METHOD OF FORMAL GEOGRAPHY.

A COURSE IN THE ESSENTIALS OF MAP GEOGRAPHY.

THE WORLD AS A WHOLE. (First Time Over.)

1. Globe Work.

Put a globe in the hands of each child in your class. Have much work in handling it by having the children point to places called for. Teach in this connection the six continents and the five oceans. Teach North, East, South, and West as applied to the location of these continents and oceans relative to each other. Give many questions which will necessitate the visualization of the above. Fix and apply all of the above points by having the children fill in hectograph outline of the "globe" map. (For a model of this outline map, see Frye's Elements of Geography, p. 24.)

2. Mercator Map of the World.

Hang this map of the world before your class and repeat the directions given under the above head of "Globe Work." As before, fix and apply by filling in an outline of this Mercator map. (For a model of this outline map, see California S. S. Text, advanced, p. 26.)

Suggestions as to Method.

To test whether results have been gotten, take children on an imaginary journey. (Map not visible.) For example:

I sailed west from San Francisco, on what water? and came to the continent of
I sailed south along the coast and entered the ocean. Sailing west on this ocean I came to the continent of, etc., etc.

This will show if the children have formed a clear mental picture of the land and water masses of the globe. It is not to be supposed that children can do this imaginary work perfectly and readily so early in the course as this, but a little of this kind of work along every few days will serve both to introduce pleasing variety and at the same time tend to force the child away from reference to the map before him.

In teaching direction it must be remembered that there are three distinct fields in which direction is applied: 1. Direction on the globe; 2. Direction on the flat map; 3. Direction in reality. Direction on the globe must be seen in terms of curved lines; direction on the flat map is seen in terms of the relation of the map to the page or sheet upon which it is printed, that

is, north is toward the top, east toward the right-hand side, south toward the bottom, and west toward the left-hand side. Direction in reality must be learned empirically and outside the school-room. Reflexes for the determination of direction must be established along each of the three lines at the proper time, that is, when the need for their use arises. It does no good to arbitrarily associate them in the school-room. The customary method is to hang the map in the school-room in such a position that its right-hand side will be toward the east. With a little thought based upon intelligent observation it will easily be seen that nothing is gained by this procedure.

It is necessary that close attention on the part of the teacher be paid to the matter of spelling on the part of the children. They must learn to spell accurately the names of the places studied. Insist upon this from the beginning of your work. See to it that a few minutes each day are spent in the spelling of geography words. Each evening give out a list of words of say six or eight for home study. At frequent intervals send the class to the board to write upon dictation the list of words assigned for study.

It is best to have the children print their letters when filling in hectograph outlines. Young children write a large hand. In consequence the name of San Francisco usually will stretch across the Pacific Ocean. By printing the letters the names will appear more compact. Again, in attempting to crowd their script into smaller compass the child is likely to affect his general style of penmanship unduly.

NORTH AMERICA. (First Time Over.)

1. Sketching.

Spend a few minutes each day in having the children practice sketching the outline of this continent. Draw the outline of North America with crayon on a sheet of black paper large enough to be seen by your class. Make it as simple as possible, commensurate with accuracy. Hold this up before the class. After the children look intently at it for a moment, ask them to draw it at the board. Allow only one minute in which the drawing is to be done, later reduce to thirty seconds. (See suggestions.)

2. Relief Features.

Mountains: Rocky, Appalachian.

Rivers: Mississippi, Missouri, Colorado, Ohio, Rio Grande.

Seas: Atlantic, Pacific, Arctic.

Gulfs and Bays: Mexico, Hudson, San Francisco, Puget Sound.

Lakes: Great Lakes as a whole.

3. Political Features.

Cities: New York, Chicago, San Francisco, New Orleans, St. Louis, Tacoma.

Countries: United States, Canada, Mexico.

Suggestions Regarding Sketching.

There is no better method for clearing up a child's vague, hazy notion of the outline and shape of a given continent than by the method of rapidly sketching it from memory. The chief purpose of all this work in formal geography is to build up in the child's mind a good visual picture of the important land and water masses. If a child can step to the board and in a few seconds sketch-in a fairly accurate outline of a given continent, the teacher may rest assured that that child has formed a good mental image of the continent. His first attempt will be crude, which indicates that the concept he has formed is not well defined. Rapid drawing is a means of focusing the child's attention upon the outline, upon the proportion and relation of its essential parts, which in turn renders definite his mental image. Aside from this effect in helping the process of visualization, the power of quickly sketching an outline is of value in that it gives the child the ability to make his observations more intelligible to others.

At first the child should be allowed as much as a minute to draw-in one of the simpler outlines. At a later time, after the child has had more practice, the time should be reduced. The tendency is for children to put in all the minor details and irregularities of the coast line. In consequence, their outlines are much more likely to be out of proportion. Their attention, on the other hand, should be on the outline as a whole and on the proportion and relation of its more significant details. This attention to the outline as a whole will not be gotten unless the teacher forces it upon the children. Limiting the child's time and insisting that the sketch be completed within the time limit will go far toward overcoming this difficulty.

Comparison with the original, together with criticism and correction by the teacher, must follow each exercise. The mere drawing of the outline is of no value. Criticism shows the child where he is wrong and affords a basis for an intelligent attempt on his part to improve. Mere repetition without this criticism serves only to make inaccuracies more permanent. It is better that children never make an attempt at sketching than that the teacher fail in this matter of criticism.

In beginning this sketching it is well to call the attention of the class to a few of the most salient features of the coast line. In the case of North America, for instance, point out that the general shape of the continent is triangular; that the west and north sides are nearly equal in length; and that the Gulf of Mexico is due south of Hudson Bay. Too many of these details, however, are worse than none at all, as they confuse the child.

Tracing the outlines or copying them free hand from a map are both to be condemned as valueless in achieving our object. A child will never memorize the outline as long as he depends upon some such aid. The teacher must therefore insist that all such makeshifts be abandoned. The text-book map is useful in this connection in that it can easily be referred to by the child when criticising his own imperfect sketches. The text-book map has no other legitimate use in sketching. It must be kept in mind by the teacher that the sketch drawn by the child has in itself little or no intrinsic value.

Its value lies wholly in this, that it serves to show the clearness of the child's mental image. For this reason, therefore, the teacher must resist the temptation to secure a finished product by any such means as tracing, copying, or by the use of construction lines.

Miss Anna Gaffney, Third Grade, says of map sketching:

Among other methods for forming a mental image of the continents I used extensively the one of map sketching. In preparation for this work I drew a simple chalk outline on a piece of black paper two by three feet. This outline was drawn very heavy to enable the children to see it readily. It did not include all of the indentations of the coast line, but was, on the other hand, merely a bold relief outline of the country.

In order to make clear just how this map sketching was carried on, I will take for an example the continent of South America. I had the children pass to their customary places at the board. Having my outline in my hand, the children all facing me, I told them to look intently at the outline. For a moment or two I had them trace the outline in the air as they looked at it. After holding the outline before them for a few seconds I gave the word, "Draw." At that signal the class at once turned to the board and sketched the outline. When their outlines were finished, "Attention" was called. I had each child then look at the original outline which I held in my hand. Through questioning, the children's attention was called to some of the most striking features of the shape of the continent. Among other things the children saw that the continent was nearly triangular in shape, that the northern part is the widest, and that the coast of Chili is almost a straight line. After noticing these points the class turned, erased their old maps and sketched again. This time I timed the class, giving them one minute. As they got more practice the time was shortened, until finally they were expected to draw the outline in thirty seconds. When the minute had expired "time" was called, and the children faced around. I then went up to each pupil, and with quick, bold strokes showed them wherein their outline was incorrect. I thought that in this method of procedure the children would learn from me through imitation. After each child was shown how to correct his outline, all maps were erased. For the third time they faced about and looked at my outline, then turned to the board and drew, limited, as before, to one minute. It was remarkable how much their outlines improved at this third drawing. Their sketches at the first attempt were perfectly ridiculous, discouragingly so, as a matter of fact. I enjoyed very much seeing their steady improvement. The children themselves liked this part of the work very much. I would frequently call the attention of the children to the best sketches which were drawn, and if some one or more were very good I would have the owner write his name and the time it took him to draw it, over the map. The children liked very much to have their outline left on the board, and strove hard to have a good outline.

This manner of sketching has some very good points. In the first place, the children were thereby much more interested in the geography. Then, in the second place, the children in this way get a very vivid impression of the shape and the proportion of the several parts of a given continent.

Having this simple relief outline, and allowing no more than one minute in which to draw it, the children had no opportunity to bring out every little detail of the outline. Along this line lies my great objection to having the children copy their maps. Their attention is centered on every little detail, and when they have completed their outline they have not the least idea of the general shape of the country or continent which they have been studying.

Another line of this sketching work was that carried on at the seats on paper which I distributed. However, I do not approve of having this work done until after the children can do very well at the board. Even when they are well up in sketching at the board they do not always do well at their seats. When they are at their seats you can not see each outline and correct it, as you can when they are drawing at the board.

When the children could draw a fairly good outline at the board I had them fill in their map. As, for example, in South America: I would tell the class to put in the Andes Mountains. They would make the mountains, then they would write the name "Andes Mts." across them. In putting in rivers, I had the children begin with a light line and make it heavier toward the mouth. When they were required to put a city in I had them put a dot or little cross just where the city was and then write the name out from the mark.

SOUTH AMERICA. (First Time Over.)

1. Sketching.

A single chalk outline needed for sketching. (For directions, see "Suggestions Regarding Sketching.")

2. Physical Features.

Mountains: Andes, Brazilian Highlands, Guiana Highlands.

Rivers: Amazon, Orinoco, La Plata.

Seas: Atlantic, Pacific, Antarctic.

Capes: Cape Horn.

3. Political Features.

Countries: Brazil, Argentine.

Cities: Rio Janeiro, Buenos Ayres.

Suggestions as to Method.

Locate all of the above on both the globe and Mercator world maps. Keep up a constant review of the points learned in North America and the World. Continue the "story" work. Vary by having the children invent the story. Fix by the use of the hectograph outlines.

When a child is asked to step to the map on the wall and point out Brazil, do not allow him to rest his pointer merely on one point in Brazil while giving the name "Brazil." The danger here is that the child will fail in getting a clear notion of the extent of the given country and confound it with some city. See that when he refers in this way to Brazil he runs his pointer about the boundary and thus indicates the area contained therein.

EUROPE. (First Time Over.)

1. Sketching.

A simple chalk outline for this as in the case of the other continents. (For directions, see "Suggestions Regarding Sketching.")

2. Physical Features.

Mountains: Alps, Ural.

Rivers: Danube, Volga, Rhine.

Seas: Atlantic, Mediterranean, Black, Caspian.

3. Political Features.

Countries: Spain, France, Italy, Russia, British Isles.

Cities: Rome, Paris, London, Berlin, St. Petersburg, Constantinople.

Suggestions as to Method.

In the hectograph outlines of Europe which you print, indicate by *dotted* lines the chief political divisions. Be careful, however, that these boundaries are not confused with the rivers in the outline.

Frequently in filling in these hectograph outlines the children write as if a name extended over a great deal of territory. See that the precise location of a given place is indicated by the use of a dot or a cross.

ASIA. (First Time Over.)

1. Physical Features.

Mountains: Himalaya, Caucasus, Plateau of Thibet.

Islands: Japan, Philippines.

Seas: Pacific, Japan, Red, Indian.

2. Political Features.

Countries: China, Siberia, India, Arabia, Japan.

Cities: Pekin, Calcutta.

Suggestions as to Method.

No direction has been given for sketching the outline of Asia, as it is too difficult for children to get much in the way of results.

Keep up a constant review of all the work taken up to this point by the use of the globe and the world map. Apply direction and also test for visualization by the frequent use of stories. Give also frequent formal drills on spelling of the places taken up.

AFRICA. (First Time Over.)

1. Sketching.

A simple outline for sketching.

2. Physical Features.

Mountains: Atlas, Abyssinian Plateau.

Rivers: Nile, Niger.

Gulfs, Seas: Red Sea, Indian Ocean, Antarctic, Atlantic.

Capes: Good Hope, Blanco.

3. Political Features.

Countries: Sahara Desert, Egypt, Barbaria States.

Cities: Cairo, Alexandria, Cape Town.

CALIFORNIA. (First Time Over.)

1. Sketching.

A simple outline for sketching.

2. Physical Features.

Mountains: Coast Range, Sierra Nevada.

Rivers: Sacramento, San Joaquin.

Lakes, Bays: Tahoe, San Francisco, Tulare.

Ocean: Pacific.

Capes: Mendocino.

3. Political Features.

Counties: Those bordering on San Francisco Bay.

Cities: San Francisco, Los Angeles, Oakland, Alameda, Berkeley, San Diego, Santa Barbara.

UNITED STATES. (First Time Over.)

1. Physical Features.

Mountains: Rocky, Appalachian, Sierra Nevada, Coast Range.

Rivers: Mississippi, Ohio, Missouri, Colorado, Columbia, Rio Grande, St. Lawrence.

Lakes: Superior, Michigan, Huron, Erie, Ontario.

Gulfs, Bays: Mexico, San Francisco Bay, Puget Sound.

Oceans: Atlantic, Pacific.

Capes: Cod.

2. Political Features.

States: Pacific Coast Division, Gulf Division.

Cities: New York, Boston, Washington, San Francisco, New Orleans, Seattle, Tacoma.

THE WORLD AS A WHOLE. (Second Time Over.)

1. Globe Work.

Keep up a constant review of the globe. When a new continent is taken up always go back to the globe and give a thorough review. Visualize the world as a whole. Relate every step of the preceding outline to the globe.

2. Mercator Map of the World.

Follow above directions. Have a constant use of the hectograph outlines.

NORTH AMERICA. (Second Time Over.)

1. Sketching.

Keep up the work outlined in "First Time Over."

2. Physical Features.

Mountains: Sierra Nevada, Coast Range, Mt. Whitney, Mt. Shasta.

Rivers: St. Lawrence, Columbia, Rio Grande.

Gulfs, Bays: Gulf of California, Gulf of St. Lawrence.

Seas: Bering.

Lakes: Names and location of each of the Great Lakes.

Islands: Newfoundland, Cuba, Greenland.

3. Political Features.

Cities: Boston, Washington, Mexico, Los Angeles, Quebec.

Countries: United States, Mexico, Canada, Central America.

SOUTH AMERICA. (Second Time Over.)

1. Sketching.

A continuation of previous outline.

2. Physical Features.

Rivers: San Francisco.

Lakes: Titicaca.

Islands: Tierra del Fuego, Trinidad.

Capes: St. Roque, Blanco.

Bays, Gulfs: Gulf of Darien, Gulf of Panama.

Strait: Magellan.

3. Political Features.

Countries: Venezuela, Peru, Chili, Brazil.

Cities: Lima, Santiago, Pará.

EUROPE. (Second Time Over.)

1. Sketching.

Continue this work.

2. Physical Features.

Mountains: Pyrenees, Apennines, Mt. Vesuvius.

Rivers: Po, Seine, Thames, Elbe.

Seas: Baltic, North, White, Adriatic.

Gulfs, Bays: Bay of Biscay.

Islands: Ireland, Sicily, Iceland.

Straits: Gibraltar, Dover.

3. Political Features.

Countries: Germany, Austria, Denmark, Turkey, Norway, Sweden.

Cities: Athens, Vienna, Lisbon, Madrid, Dublin, Edinburgh, Hamburg.

ASIA. (Second Time Over.)

1. Physical Features.

Mountains: Ural.

Rivers: Indus, Ganges, Euphrates, Tigris.

Islands: Sumatra, Borneo, Ceylon.

Seas: Bering, Yellow.

Gulfs: Persian, Gulf of Aden.

2. Political Features.

Countries: Persia, Turkey, Holy Land.

Cities: Shanghai, Hong Kong, Tokyo, Bombay, Manila.

AFRICA. (Second Time Over.)

1. Sketching.

Continue this work.

2. Physical Features.

Mountains: Kong.

Rivers: Orange, Kongo.

Lakes, Gulfs, Bays: Victoria Lake, Lake Tchad, Gulf of Guinea, Suez Canal.

Seas: Mediterranean.

Capes: Verde.

Islands: Madagascar.

3. Political Features.

Countries: Morocco, Algiers, Tripoli, Cape Colony.

Cities: Tunis, Suez, Freetown.

CALIFORNIA. (Second Time Over.)

1. Sketching.

Continue the work.

2. Physical Features.

Mountains: Mt. Whitney, Shasta, Diablo, Hamilton.

Rivers: Salinas, Feather, Russian.

Valleys: Yosemite, Santa Clara.

3. Political Features.

Countries: Those bordering on the ocean.

Cities: San Bernardino, San Luis Obispo, Ventura, Pasadena.

UNITED STATES. (Second Time Over.)

1. Physical Features.

Mountains: Shasta, Hood, Pikes Peak, Adirondack, Cascade.

Rivers: Potomac, Delaware, Hudson, Tennessee, Cumberland, Arkansas, Sacramento, San Joaquin.

Lakes: Champlain, Great Salt Lake.

Gulfs, Bays: Chesapeake, Delaware.

2. Political Features.

States: Atlantic Division, division bordering on the Great Lakes, New England States, Alaska.

Cities: Salt Lake, Sacramento, St. Louis, Kansas City, Omaha, Galveston.

THE WORLD AS A WHOLE. (Third Time Over.)

Review and clinch the work already outlined.

NORTH AMERICA. (Third Time Over.)

1. Sketching.

Continue the work already outlined.

2. Physical Features.

Mountains: Sierra Madre, St. Elias, Popocatepetl.

Rivers: Yukon, Hudson, Potomac.

Gulfs, Bays: Bay of Fundy, Chesapeake.

Lakes: Winnipeg, Great Salt Lake.

Islands: Newfoundland, Cuba, Hayti, Bermudas, Bahamas, West Indies.

Capes: Cod, Hatteras.

3. Political Features.

Countries: Alaska, Central America, Greenland.

Cities: Havana, Baltimore, Philadelphia.

SOUTH AMERICA. (Third Time Over.)

1. Sketching.

Continue as previously directed.

2. Physical Features.

Mountains: Volcano of Cotopaxi.

Rivers: Magdalena.

Islands: Falkland, Galapagos.

Bays, Gulfs: Gulf of Venezuela, Guayaquil.

3. Political Features.

Countries: Guiana, Colombia, Argentine, Bolivia, Ecuador.

Cities: Panama, Rio Janeiro, Buenos Ayres, Quito.

EUROPE. (Third Time Over.)

1. Physical Features.

Mountains: Carpathian, Scandinavian Alps.

Rivers: Ural.

Seas: Irish Sea.

Bays, Gulfs: English Channel, Gulf of Genoa.

Islands: Corsica, Crete, Sardinia.

2. Political Features.

Countries: Portugal, Switzerland, England, Scotland, Wales.

Cities: Moscow, Copenhagen, Constantinople, Liverpool, The Hague, Stockholm, Naples, Venice, Brussels.

ASIA. (Third Time Over.)

1. Physical Features.

Mountains: Altai, Pamir, Mt. Everest, Mt. Ararat.

Rivers: Yang-tse-Kiang, Amoor, Lena, Obi, Hoangho.

Islands: Formosa, Celebes, Java.

Seas: Okhotsk Sea, Arabian Sea, Indian Ocean, China Sea.

Bays, Gulfs: Gulf of Siam, Bay of Bengal.

2. Political Features.

Countries: Persia, Corea.

Cities: Singapore, Mecca, Jerusalem.

AFRICA. (Third Time Over.)

1. Sketching.

Continue the work previously outlined.

2. Physical Features.

Mountains: African Highlands.

Rivers: Zambesi.

Lakes: Nyassa, Tanganyika, Tchad.

Gulfs, Seas, Bays: Gulf of Aden, Red Sea.

Capes: Guardafui.

Islands: Madeira, Canary, St. Helena.

3. Political Features.

Countries: Congo Free State, Abyssinia.

Cities: Mozambique, Pretoria.

AUSTRALIA. (Third Time Over.)

1. Physical Features.

Highlands: Locate the region.

Rivers: Murray, Barling.

Gulfs: Gulf of Carpentaria.

Islands: Tasmania, New Zealand, New Guinea, East Indies, Philippines.

3. Political Features.

Cities: Melbourne, Sydney, Wellington, Adelaide, Auckland.

CALIFORNIA. (Third Time Over.)

1. Sketching.

Continue the outline.

2. Physical Features.

Mountains: Lyell.

Rivers: American, Merced, Kings, Eel, Klamath, Colorado.

Deserts: Colorado, Mohave.

Capes: Point Arenas, Point Loma, Point Reyes.

Lakes: Mono, Klamath, Goose, Clear.

Valleys: Death Valley.

Islands: Farallones, Santa Cruz, Catalina.

3. Political Features.

Counties: Of Southern California, Valley counties, Nevada Division, Oregon Division.

Cities: Sacramento, Stockton, Bakersfield, Fresno, Yuma, Needles, Santa Rosa, Ukiah, Marysville, Mohave, Vallejo.

UNITED STATES. (Third Time Over.)

1. Physical Features.

Mountains: Sierra Madre, Blue Ridge, Cumberland, Green.

Rivers: James, Merrimac, Connecticut.

Islands: Long Island, Bahama Islands, Cuba, Hayti, Jamaica.

2. Political Features.

States: Mississippi Valley Division, Rocky Mountain Division.

Cities: Vicksburg, Minneapolis, Baltimore, Philadelphia, Atlanta, Denver, Sitka.

PICTURED RELIEF.

By WALTER J. KENYON.

Of the many devices in use for the visualizing of geographical forms, pictured relief is, upon the whole, the most satisfactory. For about two decades a heroic struggle has been made to bring the sand table into use. I have yet to meet, however, the geography teacher who persists in its use after a fair trial. The sand table offers a multitude of disadvantages that more than offset its one service—this not by any means adequate—of visualizing relief. Pictured relief, while free from the shortcomings of sand modeling, far exceeds the latter in its possibilities for suggesting natural features. It is of such surpassing value in this direction that no text-books in geography are now published without a series of pictured continental reliefs. It must be said of these, however, that they lack the suggestion of reality. A plaster cast lacks interest for the student because it carries the least possible feeling of reality with it. And if such a plaster cast is photo-

graphed for reproduction on the text-book page this shortcoming remains. It should therefore be greatly encouraging to the teacher to reflect that her own modest attempts at the blackboard are likely to carry her pupil closer to a realization of structural relief than are the more pretentious representations on the text-book page.

The value of such use of the blackboard, in holding the children's attention and interesting them in their study, is very great. And the teacher has only to make a beginning in this work to find it out. One student said that, as she sat day by day with a pictured relief of North America on the board before her, its valleys seemed to dilate and become populated with forms of life.

The value of the drawn relief over the mechanically produced one lies in precisely that touch that is manifest in any piece of handwork. It is the difference between a Greek vase and a cast bottle; or between the actual marble as it leaves the sculptor's tool and the stamped metal replicas that greet the modern eye at every turn. In any work performed directly by the human hand there is that vibrant throb of life that alone can express thought suffused with feeling. No other thought is of value, in an educational sense. And this high criterion of all art is no less applicable to the humble device of geographic relief sketching.

The Board.—By long odds the best blackboard for our purpose is the natural slate. And those teachers are to be envied who find themselves in communities so progressive as to fit their schools with such conveniences. In order, however, that less fortunate ones shall not be wholly discouraged, I have purposely drawn some of the accompanying maps upon the poorest possible type of blackboard, to wit: a painted plaster wall. The map of California (Fig. 12) was drawn upon such a "blackboard."

A Substitute for Blackboards.—Frequently our students draw maps of too much value to be summarily erased at the end of the day's work. And often it is desirable to preserve such maps throughout a series of lessons; and again it may be desirable to carry them from room to room for use before various classes. The discovery of black pattern paper is therefore of considerable value in the case. This is a jet black paper used by tailors in cutting patterns. It comes in sheets two feet by three feet, and east of the Rocky Mountains costs a cent a sheet at paper warehouses.

This black paper takes the chalk in a most satisfactory way and the marks are readily erased with a cloth. Maps and pictures drawn on this black paper can be carried from room to room or from school to school. Or they may be rolled up or hung up and preserved indefinitely. When such an extended preservation is desirable, the drawing may be blown with a spray of fixatif, which preserves it against rubbing.

The Crayons.—The crayons to use are those ordinarily used in school-rooms—the common soft "chalk," both white and colored. Most colored blackboard work fails because of its gaudy crudeness. But this may be happily remedied by toning down the harsh colors with charcoal as you

work along. A ten-cent box of stick charcoal should be at hand, as it will be called for in any work, whether in plain white or in colors.

Pictured Reliefs.—For our purpose we may think of a mountain as conventionally a pyramid. It could be represented by three lines inclosing the two visible slopes. If we now imagine our pyramid to be lighted on one side, say the west, the other side, by comparison, will be dark.

If we redraw this figure, softening the lines a little, we have a mountain,



A pyramid.

A lighted pyramid.

A mountain.

FIG. 1.

so far as our present need requires. It helps the effect to draw the strokes out, with the bare fingers, into the surrounding plain.

This mountain, so far as map drawing is concerned, is the unit of structure. A range of mountains is merely a row of these units hung along a divide, like clothes on a line. The tyro will, however, make this resemblance too literal. Her divide, or water-parting, will be a straight line instead of the jagged and sinuous meeting of slopes that a divide invariably is. Her mountains, too, will be all of a size and without any passes between them, as in Fig. 2. And when she first tries to show the passes she will make them at plain level, thus breaking her range up into unsatisfactory, disconnected groups, as in Fig. 4. There is in this simple exercise, therefore, room for some practice. The strokes should not be too uniformly



FIG. 2. Like clothes on a line.



FIG. 3. A range.

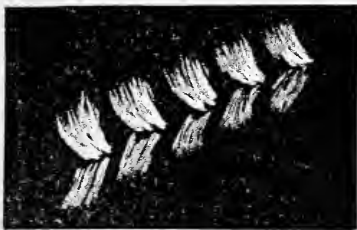


FIG. 4. "Unsatisfactory, disconnected groups."



FIG. 5. An odd mistake.

parallel. They should mix and cross so as to give a general light and shade effect. They should also vary in



FIG. 6. "Not right or left, but upward."

length, that the mountains may be of different heights. On comparing Fig. 3, point by point, with Figs. 2 and 4, these various criticisms are easily apparent.

An interesting objective in this exercise is to see if you can make the range terminate gradually or dwindle down (Fig. 3), instead of stopping with an abrupt jumping-off place, as in Fig. 2.

One odd mistake which nearly every beginner makes is to get the east slope *rising from the summit* instead of falling. Thus in Fig. 5 the eastern base, A, is actually higher than the crest, B. To avoid this we have only

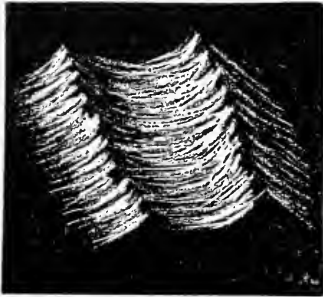


FIG. 7. A valley.



FIG. 8. An elevated valley, or plateau.

to keep in mind our original figure, the pyramid, with its vertex pointing not right or left, but upward. The eastern base will then keep on a level with the western.

After your mountain range has a rugged and natural feeling, try a valley by adding an opposing range. The effect of a valley is most readily produced by striking the crayon back and forth with a cradling motion, taking care to have the maximum light in the right place. See Fig. 7.



FIG. 9. Value of charcoal.



FIG. 10. Shadows overdone.

We can make this an elevated valley or plateau by making the inner slopes short and the outer ones long, as shown in Fig. 8.

So far we have used only the white crayon. Let us now try the effect of charcoal for the shadows. This may be easily overdone. A little charcoal goes a long way. Only patient experiment is required, however, to make it a valuable adjunct of the blackboard work. The proper and improper results are seen in Figs. 9 and 10.

Having now a plateau, somewhat conventional in its feeling, let us make it "look natural." A real plateau is a rugged mountain land, usually rimmed by higher mountains. This broken surface is easily pictured by working in smaller ranges, not too uniform and parallel. Finally choose a place that looks likely and put in a lake with your charcoal.

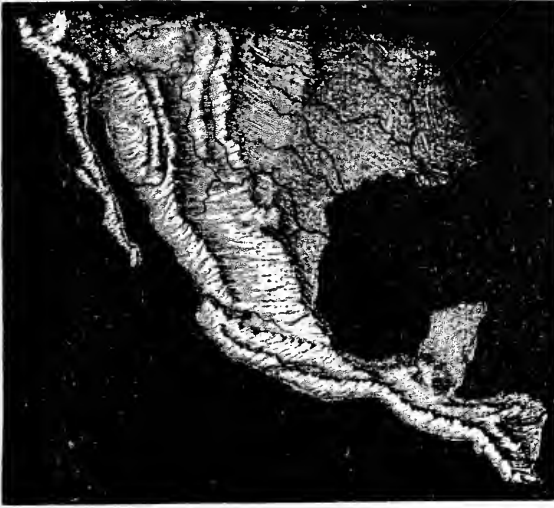


FIG. 11. A part of North America.

Down to this lake and beyond it a river may flow, breaking finally through the coast mountains and reaching the sea. Be careful to make the river taper, beginning with a fine line at the source and ending toward the mouth with a coarser one. The line should wriggle, to give the effect of meandering. The river is put in with charcoal *after the land surface has been finished*. The lake may be represented by the bare board, its contour being cut out by the corner of a blackboard eraser.

If the work has been painstakingly carried to this point we have a fair representation of southern Mexico. It may be more readily recognizable by adding the Yucatan peninsula and Central America, as in Fig. 11.

This exercise serves as a key to all relief drawing. We have a plain (Yucatan), a valley, a range, a plateau between ranges; also river, lake, coast. An extension of this idea, based upon a careful scrutiny of a text-book map, will yield a satisfactory relief of any geographical area.

It should be said here that the mere copying of a text-book map, with however much fidelity, is not really a strong method of study. A student might produce a remarkably faithful facsimile of the pub-



FIG. 12.

lished map and yet be wholly ignorant of the area he has represented. His map, therefore, to be of most value, should not be in a direct sense a copy, but rather a record of what he knows of the area depicted, reinforced and corrected by reference to the text-book map.

WHAT SHALL A MAP CONTAIN ?

There has been some discussion as to what a map for elementary school use should contain. The diversity of belief in this regard becomes apparent in a comparison of the maps in various leading text-books. In some of these the continental reliefs have been divested of every feature that gives them the *feeling* of land masses.

This elimination of detail may easily be carried too far. A good map is not entirely symbolic. It is to some degree a portrait of the area dealt with. If by our eliminations we obliterate the characteristics of the area, our map wastes the paper it is printed upon. The lakes of the Hudson Bay region, for example, are of a minor importance economically; and a very good geography course might be given in which the pupil never so much as repeated their respective names. These lakes should nevertheless appear on the map, because they strongly characterize that area, and are full of meaning to any eye, taught or untaught. It is one thing to omit mention of natural features in the text. It is quite another to leave them out of the map.

The same is true in the case of minor rivers where they occur in groups, as in our Atlantic slope. To the eye they tell a silent story that we can not afford to leave out. But the text may profitably leave many of them unnamed.

Again, portraiture is dealt with in coast lines, where it is indeed most often overlooked in the so-called simplified maps. A map that defines the coast of Norway in the same smooth line that is adapted for the Baltic shore loses a golden opportunity for telling a fundamental bit of geography in a simple way. Nor can this sterilizing tendency be excused by any tenet of pedagogy. No one would think of plucking out the hairs from Lucy's kitten that the child might behold a simpler entity in her pet. Naturalism is always a safe guide in the graphic presentation of thought material for childhood.

SOME "DON'TS" IN PICTURED RELIEF.

(1) *Accented Coast Lines.* One's first impulse is to strengthen the coast line so that it stands out as an object in itself, instead of just a place where two surfaces come together. In a properly finished map the coast line should not show. This error is shown along the Gulf coast, *a*, in Fig. 13. Compare it with the corresponding coast in the correct map, Fig. 14. The remedy is to use a soft, sketchy line in first mapping out the continent, and to let it go at that.

(2) *Meaningless Scollops.* Amateur mappers in drawing a coast line are apt to *wiggle* the crayon with a vague idea that coasts run that way. The

result, *b*, is entirely without feeling. The best way of avoiding this mistake is to think of the particular stretch of coast as you draw it: Is it a rocky, deeply indented fiord coast as in Alaska or Norway, or a succession of softly curving beaches, as on our southern Atlantic seaboard? Try to image the region as you draw it.

(3) *A Killed Coast Line*.—Having just discussed this point there remains only to illustrate it. In Fig. 13, *c* shows a killed coast line. To be consistent the cartographer advocating such departures must kill his rivers also—stiffen them into walking sticks instead of meandering streams. How can



FIG. 13. A Budget of "Don'ts."

he avoid it! Singularly enough his maps adhere painstakingly to the truth in the matter of length and breadth. Yet, as to the value of data, let us contrast:

1. North America is 5,700 miles long and 3,200 miles wide.
2. The fiords of Alaska are unlike the sandbars of Carolina.

Now, why should a map for elementary school use be insistent about fact 1 and carefully eliminate fact 2!

(4) *Omission of Plateaus*.—In a land mass the big thing is the plateau, not the mountain. This is true whether we consider merely their respective

bulks or their economic aspect as controls. Notice at *d* the mountains seem to rise abruptly out of a lowland instead of a plateau or table-land. In other words, the Utah plateau is made to look exactly like the Mississippi

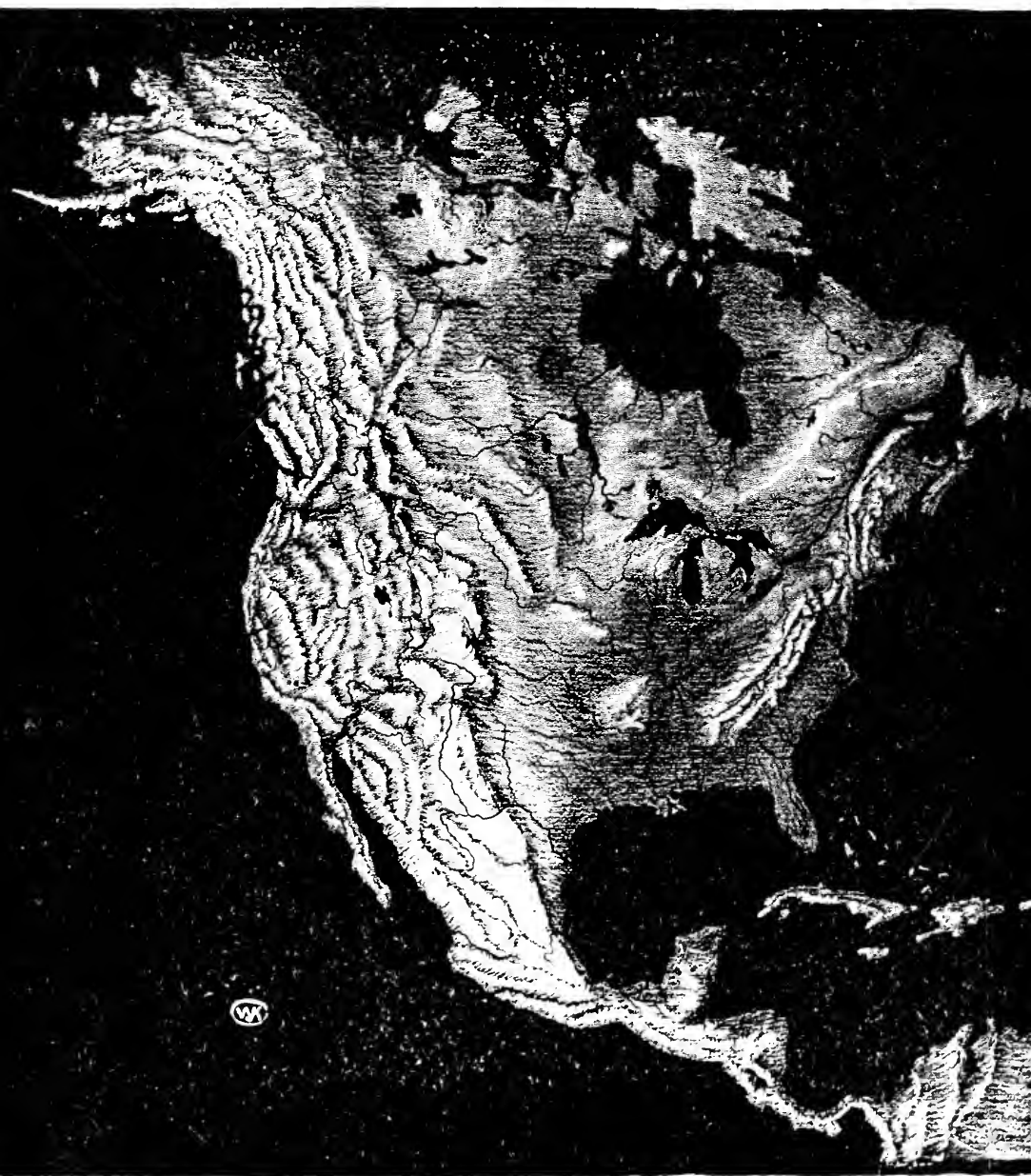


FIG. 14. North America, as it ought to look.

bottomlands. If this mistake were shown in profile it would appear as in Fig. 15, while the correct idea (save of course for vertical exaggeration) would be better served by Fig. 16.

Think, therefore, of the plateau rather than the range. Look for the plateau in your text-book map. If it is a good physical map, with a color scheme, the coloring will show the plateau area. A good text-book map, carefully studied, is the equivalent of many pages of print.



FIG. 15. Where is the plateau?



FIG. 16. The plateau, not the mountain, is the big thing.

(5) *Chopped-off Ranges*.—No elevations save foothills ever abut directly upon a lowland. Nor do we ever find sea-level plains breaking principal ranges. The yawning blanks at *e*, Fig. 13, are a mistake in both idea and expression. The great continental ranges are nowhere broken up into these choppy masses. It is true there are passes. But these are not sea-level gaps, they are thousands of feet in altitude. Keep in mind the continuous plateau and there will be no inclination to leave these impossible blanks. A good way of beginning is to rub in the plateaus in a flat white tint, regardless of mountains, as in Fig. 17; and build in the mountains later.

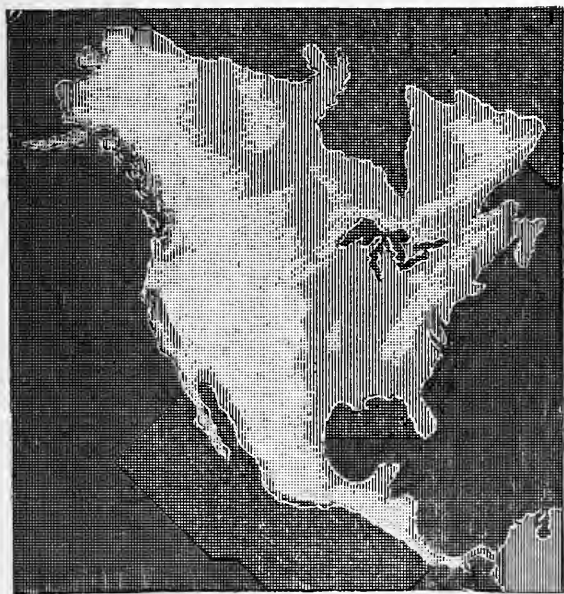


FIG. 17. Rub in the plateaus, regardless of mountains.

(6) *Rivers Cut Off*.—A common fault in pictured relief is to start a river a thousand miles or so short of its true source, as at *f*. This seems to arise from a lack of understanding of the relations of mountains to rivers. No good-sized river (save the Volga) takes its rise in a lowland. On the contrary, the upper waters of such streams are apt to flow for long distance between closely confining ranges. Thus the mountains, if correctly placed, help us to place the rivers, and *vice versa*.

(7) *Streams Without Taper*.—It requires but a glance at the text-book map to see the rivers beginning at their sources as fine lines; and thence

gradually augmenting until, in their lower courses, these lines have considerably more body. Simple and expressive as is this device, the tyro will often overlook it and make her river look like a bent poker, as at *g*. It is sometimes worth while to practice drawing rivers, apart from the map, until two things are accomplished: the said tapering from source to mouth and a natural meandering, instead of the meaningless wiggle shown at *h*.

STRUCTURAL RELIEFS IN COLOR.

In the foregoing exercises we have used only white crayon, with charcoal for the shadows and watercourses. The same method in colored crayon yields results very gratifying.

The colored crayon, or blackboard "chalk" costs but a trifle more than the white and is sold by all school supplies people. The colors are glaringly crude, and if used pure, they give results fearful to see, but, if toned down with either charcoal or white crayon during the work, these same colors yield effects satisfying to the most critical eye.

There is no special method to be followed. Perhaps the following is as good as any. After outlining your continent, lay on the plateaus in white and the lowlands in green. Choose a bright, cheerful green, not a bluish tone. We now have the *whole area* filled in with either white or green (Fig. 18).



FIG. 18. "The whole area filled in with either white or green."

On the white, mark off the divides of the principal mountain ranges. Then with white crayon crush on the light side of the mountains. Get the most intensely light effect at the crest. Make your strokes slightly concave and draw them out into the valleys, horizontally. Do the dark side of each range similarly, using charcoal. Use the charcoal moderately, and, if the effect is too black, relieve with a few touches of white smudged in with the finger.

At this point our mountains will very probably appear disconnected from the plateau underlying them. A little smudging at the base will unite them with the plateau color so that they appear *not stuck to the plateau, but looming out of it*. Finally, put in the rivers in charcoal.

Now, sit down at least six feet from your map and criticise it according to the "Budget of Don'ts" in Fig. 13. (1) Does your coast-line show as a

thing in itself? If so, smudge it landward until it loses itself completely in the land coloring. (2) If your coast-line wriggles along in meaningless scallops, go over it again with crayon and eraser and try to give it character. (3) So, also, if you have put in a killed coast-line, doctor it up into life and meaning. (4) If your mountains spring suddenly out of lowlands you have omitted the most important part of the highlands—the plateau. Rub this in, in white, about the base of the mountains, and knit the two thoroughly together by smudging with the finger. (5) See if your ranges are chopped off in abrupt sections like sausages. If so, fill the gaps, and, at the termination of each range, taper it down gradually into the lowland. (6) Is your divide too straight and regular? If so, build on a high peak here and



FIG. 19

there with white, and at other places cut a lower place with the charcoal. (7) Have you held to the tent shape (\wedge) for your mountains, or have you inadvertently tipped your tent over, so (\succ)? (8) Now, examine your rivers carefully. Are the sources in the right locality, or have you lopped off seven or eight hundred miles from each river, thus destroying its reference to the highland which feeds it? (9) See, also, that your rivers taper from source to mouth.

Remember that the maps should show the plateaus as quite different from the lowlands. In North America (Fig. 14) compare the Colorado plateau with the Mississippi valley, or the

Mexican plateau with the Atlantic coastal plain.

This difference of effect is secured partly by direction of stroke. Mountains inclosing a valley have their inner slopes as deep as their outer ones. But the inner slopes of a plateau rim are shorter than its outer ones. (See Figs. 7 and 8.) Then, again, a plateau is always a tumbled sea of lesser mountains rising out of a table-land. The very act of putting in these minor mountains gives to the plateau the solid, massy effect you seek, while, on the other hand, the broad, horizontal strokes of the valley, put in with less strength, give a contrasted flatness.

If it is desired to suggest climate, as well as topography, reserve all positive green effects for the well-watered areas. In the arid parts temper the

green with reds and terra cotta tones. This will give, in a striking manner, the effect of desert tracts. Do not overdo the reddish colors, however. Remember that in a good color composition reds and yellows are sparingly used. If you decide to use red and yellow in your map it is well to work some deep blue into the mountain shadows. Blue may then be used, also, instead of black, for rivers and lakes, and sometimes for the coastal waters. Of course, the farther you depart into the complexity of color combinations the greater the danger of unfortunate effects as to harmony. The simple combination first mentioned of bright, cheerful green for the lowlands and white for plateaus can hardly be exceeded for pleasing effect. The general idea is given in Fig. 19, so far as black and white permit.

READING A MAP.

As was earlier remarked, the proper reading of a good text-book map is the equivalent of many pages of text in the measure of information conveyed. There is the "legend" to begin with. Down in one corner of the map is usually to be found a little printed explanation of the various colors and symbols employed in that particular series of maps. It is a very good tonic for the teacher herself, as well as her pupils, to go over this legend occasionally, and thus renew a possibly lapsed acquaintance with the map in its fullest value.

The oceans, for instance, are probably colored in two tones of blue. What does each tone signify? The land areas are colored in several tints. The green is used to represent lowland, but just what elevation ceases to be lowland, according to convention? In the plateau colors, which represents the lowest plateau areas and which the higher ones?

Estimate the altitude of some city on the map, as La Paz; or a lake, as Titicaca. Verify by the encyclopedia or "Lippincott's Gazetteer."

Here are two tests that work well as blackboard exercises:

Draw an outline of South America and express your notion of its elevations by inserting cross-sections. Let these be at latitudes 5° N., equator, 20° S., and 40° S. (See Fig. 20.)

Draw another outline of South America. Now, suppose the continent were to sink 1,500 feet into the sea, how would this subsidence modify the coast line? Show it in the drawing (Fig. 21). Again, suppose a further subsidence of 3,500 feet, making 5,000 feet in all. Show the new coast lines.

Now, as to rivers. Take, for example, the Amazon. In how many ways does the map tell the direction of its flow? Can you say, from any marks on your map, how far up the various rivers are navigable? If not, it is not much of a map.

Infer the character of the coast of lower Chili. Compare it with that about Buenos Ayres.

As to the cities—how can you tell whether any given one is important or not?

What do the lines mean that extend right and left across the map? What is latitude?

On the basis of latitude and altitude make a judgment as to the climate of some city—say Quito, in Ecuador ; also Pará, in Brazil.

What do the lines signify that extend up and down across the map ? What is longitude ? What is a degree ?

On the basis of latitude and longitude discover the antipodal point of any place—say your own home.

Find the “scale of miles” on your map. Invent some use for it.

Using the scale of miles find out how far your home is from some definite point, such as a city, mountain, or coast.

On the basis of latitude calculate how many miles you are from the equator; also from the poles.

On the basis of longitude calculate the distance in miles between Guayaquil and Pará.



FIG. 20.



FIG. 21.

Verify your answer by measuring the distance with the scale of miles.

Other interesting exercises may be given on the special maps of climate, vegetation, commerce, etc.

Lest it be imagined that we have departed from the subject of chalk talk it is well to reflect that an intimate acquaintance with the map is the only basis for correct map drawing. Otherwise the exercise degenerates into the mere tracing of lengths and breadths which are without meaning, and hence without value. Surely no one cares to know merely that South America is longer than it is wide. A continent is like a human being. One can not draw a character sketch of John Doe by only setting down his avoirdupois. And that is exactly what a blackboard map should be—a character sketch. And it will answer wonderfully to this description if your imagination rides, tourist-like, upon your crayon as it moves.

CHAPTER IV.

SPECIAL METHOD OF DESCRIPTIVE GEOGRAPHY.

THE METHOD OF SUPPLEMENTARY READING.

The best method of building up those associations which are selected as being essential, is, as I have already suggested, by the wide and exhaustive use of supplementary reading. The teacher should constantly be on the alert for interesting stories of life or adventure, for biography, for fiction, and for vivid descriptions which will be of interest to the children and which at the same time have their atmosphere and setting true to geographic fact. Much good material of this nature is to be found in the popular magazines of the day. This sort of material will usually be found better suited to our purpose than made-to-order children's books, which are usually written either to sell or else to exploit some educational theory. The guiding principle in the selection of books or magazine articles, for given grades, is, first, their adaptability to the average pupil in the grade; and, second, their usefulness in supplementing the topics which the teacher wishes to bring out in her recitations. The teacher will find that whatever effort she makes both in building up her school library along these lines and in gathering for her private collection short stories, pictures, and curios, which serve to illustrate geographic essentials, will be amply rewarded by the large increase in school-room effectiveness which will immediately result. (For the help of teachers who desire to know the best books in this connection, we give a list of books which have all been tested in our practice and represent the best of the kind which has thus far been written.)

In handling this supplementary reading we would suggest that the teacher will get much better results by taking up a given region and dwelling on that before passing to another region, than by passing over each in a desultory, haphazard way. She could work out to advantage a course of reading and discussion arranged on the spiral plan. It would be better to pass rapidly over the world's characteristic areas, fixing a few associations in each, than to spend the year in doing exhaustively but a few regions. The second term or year she could in a similar manner pass over the areas a second time, reviewing and fixing new associations. Whatever the teacher undertakes, however, should be done thoroughly and with purpose.

Each recitation, to be effective, must be a definite piece of work with specific preparation on the part of both teacher and pupil. The teacher should decide what points she wants brought out, then assign to the children definite references bearing on these points. The children will then

come to the recitation with an abundance of information and with different points of view. The teacher by questions and by suggestions guides the discussion in such a way as to bring out and emphasize the essentials which she wishes established.

A list of the world's characteristic areas, together with those facts and feelings which we feel the teacher should keep constantly before her as the essentials on the descriptive side, follows.

THE METHOD OF THE CHALK TALK.

When for any reason a sufficient number of suitable books and references on an essential topic are not at the command of the teacher, she should prepare herself carefully on the details, then take her class or her school as a whole and tell them the story in as interesting a manner as she can. The story can be made much more vivid and interesting if she illustrates what she has to say by drawing diagrams or pictures on the board.

After presenting her material in this manner she can send the younger children, if in a school of many grades, to the blackboard to reproduce her story in drawings, after which it can be made the basis of their language work; at the same time she can question the older children on the matter presented in her talk, emphasizing, as she does, those essential facts which she wishes them to remember. In this manner the few essentials of each talk become part of a cumulative list, which she reviews from time to time, thus insuring their permanent retention.

To illustrate concretely what we mean by such a talk, one on "The Production of Rubber" follows. The illustrations, by Mr. Walter J. Kenyon, are given for the purpose of showing teachers how they can illustrate their own stories at the board as they tell them to their children.

"Chalk Talk" on the Production of Rubber.

Teacher's Preparation:

1. She should read at least one, if possible, more, of the following references:

Kingston, "On the Banks of the Amazon," pp. 467-470.

Carpenter, "Geographical Reader, South America," pp. 312-320.

Morris, "Half Hours of Travel," Vol. I, pp. 428-432.

Nery, "Land of the Amazons," pp. 189-219.

Knox, "Boy Travelers in South America," pp. 299-303.

Markwick and Smith, "The South American Republics," pp. 208-213.

Carpenter, "South America, Social, Industrial, and Political," pp. 582-593.

Rupert, "Geographical Reader," pp. 142-146.

"The Amazon and Its Wonders," pp. 140-147.

2. She should collect all available pictures illustrating the several stages through which the crude rubber passes. If possible, she should obtain specimens of the crude rubber and also specimens representing the various stages in the process of refining. Small boxes containing these samples can be obtained by applying at the office of almost any rubber company in San Francisco.

As one winds in and out among the overhanging vines and creepers along the narrow and tortuous channels of the Amazon River, he now and then comes out upon a clearing near the river's bank occupied by a low, one-storied building, roofed with tiles and surrounded by a wide veranda.

At one end of the house is a storeroom filled with groceries and supplies. On the veranda are piles of what appear to be smoked hams, but which are really lumps of crude rubber waiting to be shipped down the river to Pará, the seaport of the Amazon region, where Indians and Negroes crate them in big boxes for shipment to England and the United States. A rude wharf of poles supporting crossbars of unhewn timbers projects insecurely into the river's channel to make easier the loading and unloading of the river boats. This is the house of a rubber planter, and all about, stretching back from the river for miles, is his plantation.

Though this great stretch of country is called a plantation, it differs very greatly from the common notion of a plantation. When we speak of a cotton plantation or of a sugar plantation, or again when we think of a coffee plantation in the highlands of Brazil, we think of the cotton plants, or the sugar canes, or the coffee bushes, as the case may be, as being very close to each other. The trees in a rubber plantation, on the other hand, are widely scattered. They do not grow together in groves, as many seem to think. In fact, the trees are so far apart that each man is obliged to travel several miles in collecting his sap for the day. Narrow paths lead from the planter's home through the dense tangle of underbrush to each of these separate trees. The number of these paths determines the size and valuation of the plantation.

Each collector has charge of but one path, over which he travels once each day. The number of trees on his path varies from sixty to one hundred and fifty, depending upon their distance apart. He leaves his camp early in the morning armed with a hatchet, the blade of which is about one inch wide, and a number of small tin cups, or sometimes, pieces of bamboo closed at one end. With his hatchet he makes a gash in a tree and fastens one of the cups under the wound. As he pulls his hatchet from the bark a milk-white fluid oozes out and drips slowly into the cup placed under it. In the same manner he makes two or three more gashes in the tree trunk, fitting them in each case as before with the cup. He thus passes from tree to tree, tapping each until he has visited all the trees on his path. About noon he begins to retrace his steps, emptying the sap from the cups, as he does so, into a large gourd, which he carries strapped to his back. The amount of sap which he collects varies according to the richness of the trees, but usually two quarts each day is considered a satisfactory amount.



FIG. 22.

As soon as he reaches camp the collector sets about the first step in the process of curing the sap and making it fit for commerce. When exposed to the air the sap hardens and the rubber becomes of an inferior quality. So the collector cures his sap as soon after he collects it as he can. This is done by smoking it with a smoke made by burning the nuts of a certain palm tree. After the fire is built the native places an earthen jar over the fire. This jar has a narrow neck, and as the nuts smolder and burn, a dense smoke pours out through this rude chimney.

The native takes a wooden paddle with a long handle and dips it into the sap. He then holds it in the smoke, twirling it over and over as he holds it there. The milk hardens and becomes grayish yellow in color.



FIG. 23.

He again thrusts the paddle into the milk bowl and again into the smoke. Thus he adds layer to layer until there is a mass of rubber about the end of the paddle as large as a six-pound ham. He cuts down one side, takes it off the paddle and hangs it in the sun to dry, as there is always a little water between the layers which should be allowed to evaporate. In color it turns, during the process of smoking, from clear white to yellow and finally to the dirty brown of commerce. After it has been thoroughly dried the natives carry it to the planter's house and there pile it up, where it awaits shipment down the river to Pará.

Instead of the wooden paddle upon which to smoke the rubber the native sometimes uses a mold of clay. Formerly, molds in the shape of the

human foot were used, and in this manner the natives fashioned the rubber shoes that were worn in America forty or fifty years ago. By soaking the mass in water the mold came to pieces and could then be shaken out.

Swiss Family Robinson (adapted).—A number of years ago a family consisting of a father, a mother, and their four boys sailed from England for one of the islands near Australia. In the southern seas they were overtaken by a fearful storm. For six long and terrible days they were driven about by the gale. As the morning of the seventh dawned the storm redoubled its fury, and they realized that they were lost.

In the cabin the boys clung tearfully to the skirts of their mother, while the father tried to calm their terrors, though he himself could scarcely restrain his sorrow at the thought that his family must soon be torn apart. But above the fury of the storm the cry of "Land" rang out, and the next

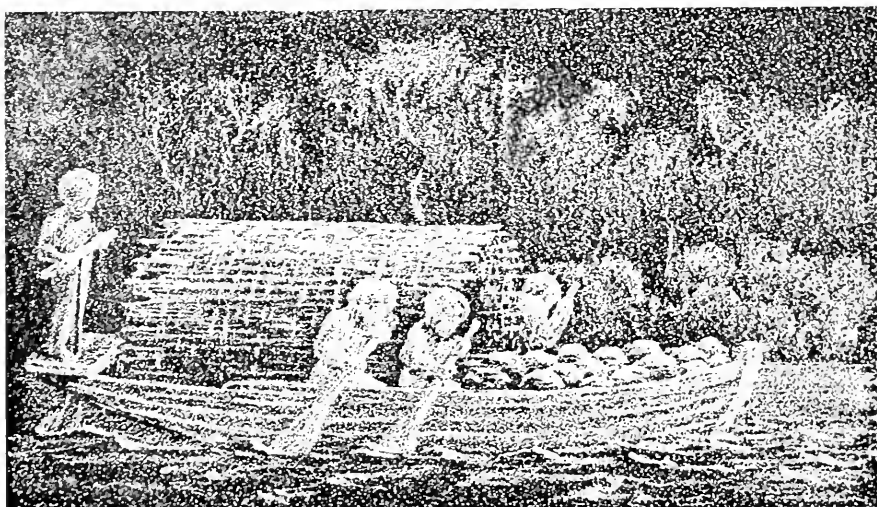


FIG. 24.

instant, with a crash, the ship struck a rock. The captain and crew rushed to their boats and left their helpless passengers to their miserable fate. Instead of sinking, the ship was, by a fortunate chance, firmly and safely wedged between two great rocks. The next day the storm subsided. The father and the oldest boys lashed together a number of casks which they found in the hold of the vessel, and ballasting their crude raft with all the useful things they could take, they carefully placed the mother in one of the casks and the little boys in another. Fritz, the eldest, took his place at the front of the raft, while his father stood at the stern in order to better guide the craft. In this manner, by careful rowing, they made their way without accident to the mainland several miles distant.

They found the land which they reached a land of high trees, of pleasant, grassy meadows, and of clear springs. They built themselves a home high up among the branches of one of the trees. They made a rope ladder, by

which they could reach their house and which could be easily pulled up when danger threatened.

The boys with their father made frequent trips into the country round about in search of game and fruits and in order to better learn the nature of the country upon which a cruel storm had cast them. As they were one day walking through an open space in the forest on one of these hunting expeditions, Fritz, who was in the lead, suddenly stopped in alarm and beckoned to his father to listen. In a moment they heard at a little distance in the forest what sounded like the popping of firecrackers or the cracking of a pistol. Never having seen any human beings in the region, they were at a loss to explain the peculiar though seemingly familiar sounds. With cautious and slow step they entered the forest. They had proceeded but a short distance when it seemed that the sounds came from above their heads. Upon glancing upward they found to their surprise as well as relief that the sounds were produced by the bursting of the nuts on one of the forest trees. Under the influence of the hot, mid-day sun the nuts which had ripened burst their shells with a loud report and scattered the seed which they contained to a considerable distance around.

Fritz was much surprised to see his father take out his knife and make an incision in the bark of the tree. He made a cup of leaves and placed it under the incision to catch the sap which slowly oozed out. They took great care to mark the tree in order that they would have no difficulty in finding it upon their return.

The next day the boys eagerly gathered about their father as he took up the cup containing the sap which he had collected the day before. He first took an old pair of stockings and filled them with sand. Over the outside he spread a thin layer of clay and dried it in the sun. After the clay was hard he took a brush and smeared a thin coat of the sticky sap over the outside of the clay and hung it in the sun. After it had dried he repeated the operation. In this way, layer after layer was added to the mold he had prepared. After the last layer was thoroughly dry he poured out the sand and soaked the remainder of the mass in water. After a little time the clay softened and was shaken out. This left a dirty-looking mass the exact shape of the foot, which the boys saw at once was a shoe. The father then explained that the tree which they had discovered in the forest and whose seeds were popping like firecrackers was an india-rubber tree, similar to those which grow so abundantly in the flooded portions of the Amazon valley.

This family lived in their tree home for several years until they were discovered by a passing ship and taken back to civilization. They found a great many useful products in their island home, but none proved more serviceable to them than this discovery of the india-rubber tree.

The first rubber about which we know anything came from India, and so it came to be called india-rubber. In England it was first used for the purpose of rubbing out pencil marks. This gave it its name of rubber. Toward the close of the eighteenth century artists valued it very highly for this

purpose, and paid in consequence high prices in order to get it. It was not until 1820 that people began using it for other things than for the erasure of pencil marks. About this time Mr. Mackintosh invented the rubber coat. Other inventions quickly followed. To-day we ride upon it in our carriages and on our bicycles. We use it by the ton to protect us from the rain. One New England factory alone makes 30,000 pairs of rubber overshoes each day. At a recent auction in Boston 4,000,000 rubbers were sold to one man. We bind our papers together with rubber bands. We use rubber on the tips of our pencils and on the fruit jars in our pantry. Combs, penholders, jewelry, and hundreds of other articles are made from this product. In fact, there is scarcely an industry or an art which does not utilize rubber in one way or another.

Story of Charles Goodyear.—Though most people have forgotten it, we owe all these useful things to the wonderful patience and persistence of just one man—a man who at one time was followed through the streets of New York city by a crowd of hooting boys who pointed their fingers at him and, in derision, called him the “india-rubber man.”

He was a strange looking man, indeed. His cap was made of india-rubber. So was his coat. He wore a rubber vest. Even his necktie was made of india-rubber. He wore rubber shoes and a rubber rain coat even in dry weather. He made paper out of rubber, and wrote a book on it. He made a door plate of the same stuff. He even carried an india-rubber cane. A gentleman once asked what sort of a looking person this man Goodyear was. “If you meet a man,” was the reply, “who wears an india-rubber coat, cap, stock, vest and shoes, with an india-rubber money purse without a cent in it, that is Charles Goodyear.”

Goodyear suffered all that a man could suffer and still live and keep his reason. He failed in business, his health broke down, and throughout life he suffered acute pain almost continuously. He was frequently imprisoned because he could not pay his debts. He saw starvation repeatedly staring him and his gentle wife and poor children in the face. One of his children died, in the dead of winter, when his home was without fuel for a fire. His friends sneered at him, deserted him, and called him crazy.

At this time the trouble with rubber was that it would freeze in winter till it was as hard as a rock, while in summer it would melt into a sticky mass when exposed to the hot rays of the sun. The first rubber coats which were made were so stiff in winter that they would stand alone, and a man wearing one found he could scarcely bend his body.

Through all these years of suffering and wretchedness Goodyear held persistently to his experiments. Nothing could discourage him. When he was thrown into prison he went on with his experiments. When he got out he borrowed money of his friends to carry on his work. Once he pawned the last one of his wife's silver spoons to get a little money to buy more rubber.

Thus he continued year after year with no results. His rain coats remained

just as stiff as ever. His boots froze in winter and melted in summer just as they had done years before he began his work.

He was talking one day with some friends who had called. He held in his hand a bit of rubber into which he had mixed some sulphur. In his conversation he became excited and while making a gesture he dropped a small piece of this rubber on the hot stove near by. To his amazement instead of melting, the rubber remained stiff like leather. He applied still greater heat to the rubber and then, to test it, he nailed it up outside his door where it was very cold. The next morning, instead of finding it frozen stiff it was perfectly pliable.

And so, seemingly by accident, but in reality through his patience and persistence, Goodyear discovered the process which came to be known as "vulcanization," and without which rubber could never have become the useful article it now is.

The production of rubber from the Amazon region, under the progress given the industry through the discovery of Charles Goodyear, frequently reaches 40,000,000 pounds per year.

The business is so great that at the mouth of the Amazon River it has built up a great city of 100,000 inhabitants—the city of Pará.

THE WORLD'S CHARACTERISTIC AREAS.

[NOTE OF EXPLANATION.—In the work which follows we have given what we consider to be the world's characteristic geographical areas. In connection with each we have enumerated what seems to us to be the essential facts and feelings which should be tamped down after much supplementary reading has been done. We have also given in connection with each region a brief list of the books which we have found best adapted to children's reading. The detailed treatment of South America, both descriptively, and physiographically by Miss McFadden in Chapter V, is to illustrate the method of procedure which we would recommend in connection with the study of the other continents. The space limitations of this Bulletin forbid the same detailed treatment of the remaining regions.]

THE CONTINENT OF SOUTH AMERICA.

1. Amazon Region.
2. Brazilian Highlands Region.
3. Orinoco Region.
4. La Plata Region.
5. Andes Region.
6. Patagonian Region.



FIG. 25.

The Amazon Region.

ESSENTIALS.

A region of dense, tropical, luxuriant vegetation, and of a hot, humid climate. Its chief product is rubber, and it is the home of myriads of insects, of brilliant-plumaged birds, and of tree-climbing animals. It is a region sparsely populated by semi-civilized Indians and Negroes.

BEST READING.

1. *A region of dense, tropical, luxuriant vegetation, and of a hot and humid climate.*

ORTON. The Andes and the Amazon. pp. 264-79.

A description of the river scenery.

STEPHENS. On the Amazons. pp. 82-6.

Describes the shores of the Amazon.

- STOCKTON. Tales out of school. pp. 287-97.
A storm on the Amazon. Pictures.
- YOUTH'S COMPANION SERIES. Strange lands near home. pp. 52-9.
Describes the luxuriant vegetation.
- COE. Our American neighbors. pp. 223-30.
The tropical forests.
- BALLANTYNE. Martin Rattler. pp. 62-70; 144-7.
Forests and vegetation of the Amazon country.
- The Amazon and its wonders.
Immensity of the river. The "bore." pp. 9-14.
Explorers' stories. pp. 14-37.
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2. *The home of myriads of insects, of brilliant-plumaged birds, tree-climbing animals, and water reptiles.*

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Exhaustive and technical account of rubber. Teachers' reading. pp. 189-219.

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Story of Charles Goodyear. pp. 170-9.

WOODS. Primer of political economy.

Story of rubber. Excellent. pp. 28-32.

CLIFFORD. Information Reader, No. 2.

History and preparation of rubber. pp. 127-33.

EGGLESTON. Stories of great Americans.

Story of Charles Goodyear. pp. 128-31.

HARTWIG. The tropical world.

India rubber. pp. 190-2.

VINCENT. Around and about South America.

Manaos, a rubber town. pp. 360-2.

The Region of the Brazilian Highlands.

ESSENTIALS.

A region of a mild tropical climate because of its altitude. Its climate and soil are particularly adapted to coffee-raising, in consequence of which there are in the region immense plantations which produce more than half the world's supply of coffee. This region is also famed for the richness of its diamond mines. This industry, together with that of coffee production, has built up the great seaport city of Rio Janerio.

BEST READING.

1. *The world's greatest coffee country.*

BROWN. Countries of the world.

Brazilian coffee. pp. 139-42.

CARPENTER. South America.

Coffee. pp. 493-507.

BALLOU. Equatorial America.

Coffee. pp. 149-51.

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BEAL. The Information Reader, No. 1.

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MARKWICK AND SMITH. South American republics.

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ANDREWS. Visit to a coffee plantation.

The coffee industry. pp. 137-71.

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2. *This region is famous also for the richness of its diamond mines.*

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BATES. Central and South America. pp. 412-13.

BALLANTYNE. Martin Rattler. pp. 255-64.

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The Orinoco Region.

ESSENTIALS.

The region of the llanos, or grassy plains. A region of countless herds of cattle. A region wet in summer and very dry in winter. A region of great natural resources, as yet undeveloped. A region sparsely populated by a non-progressive, ease-loving people.

BEST READING.

1. *The region of the llanos, or grassy plains.*

MORRIS. Half hours of travel. Vol. I, America.

Physical description of the Orinoco country. pp. 410-13.

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2. *A region wet in summer and very dry in winter.*

OBER. Adventures on the Spanish main.

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5. *A region sparsely populated by a non-progressive, ease-loving people.*

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The La Plata Region.

ESSENTIALS.

A region of low, level, grassy plains—the pampas—famous for its herding grounds for cattle and sheep. The great center of the frozen-meat trade of the world.

BEST READING.

A region of low, level, grassy plains—the pampas—famous for its herding grounds for cattle and sheep.

MARKWICK AND SMITH. The South American republics.

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The Andes Region.

ESSENTIALS.

The land of the llama and of the Inca. A region of volcanoes, of great altitudes, and of precipitous slopes. A region whose climate ranges from the equatorial heat of its foothills to the arctic cold of its mountain peaks, and from the aridity of the desert to the excessive wetness of the region on the south. A region famous for its mines of silver, which are worked by the natives, who employ crude and wasteful methods.

BEST READING.

1. *The land of the llama and the Inca.*

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2. *A region of volcanoes, earthquakes, great altitudes, and of precipitous slopes.*

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Lake Titicaca. pp. 309-12.
The highest railroad in the world. pp. 319-22.
The mountains of Ecuador. pp. 339-44.
- HIELD. Glimpses of South America.
The volcano of Cotopaxi. pp. 180-4.
- FROST. Modern explorers.
The mountains of Peru. pp. 164-89.

BISHOP. A thousand miles walk.

Pass in the Andes. pp. 277-304.

Condors. pp. 292-5.

Earthquake at Mendoza. p. 211.

Andes town of Mendoza. pp. 195-215.

Town of San Juan. pp. 216-29.

A notable gaucho. pp. 230-5.

KNOX. Boy travelers in South America.

Condors of the Andes. pp. 469-70.

KINGSTON. On the banks of the Amazon.

The condors of the Andes. pp. 112-15; 124-6; 251-3.

DARWIN. Journal of researches. Voyage of the Beagle.

Condors. pp. 192-7.

SMITH. Temperate Chili.

Across the Andes. pp. 366-78.

HARTWIG. The tropical world.

The cold, high valleys of the Andes. pp. 20-3.

Condors. pp. 28; 376-8.

3. *A region whose climate ranges from the equatorial heat of its foothills to the arctic cold of its mountain peaks; and from the aridity of the desert to the excessive wetness of the south.*

DARWIN. Journal of researches. Voyage of the Beagle.

The wetness of Chili. pp. 291-319.

CARPENTER. South America. [Geographical reader.]

The desert of Atacama. pp. 50-2; 100-107.

Climate of Chili. pp. 108-10; 150.

Straits of Magellan. pp. 151-67.

BUTTERWORTH. Over the Andes.

The desert. pp. 308-9.

HARTWIG. The tropical world.

The Atacama Desert. pp. 30-5.

Guano. p. 35.

4. *A region famous for its silver mines, which are worked by natives in a crude and wasteful manner.*

CARPENTER. South America. [Geographical reader.]

Mining in the Andes. pp. 95-100.

KNOX. Boy travelers in South America.

Mining in the Andes. pp. 230-36; 238-40.

MARKWICK AND SMITH. South American republics.

Gold and silver of Peru. pp. 127-37.

HIELD. Glimpses of South America.

Silver in the Andes. pp. 50-60.

CARPENTER. South America.

Silver mining in the Andes. pp. 177-83.

RICKARD. Journey across the Andes.

Silver in the Andes. pp. 201-20.

The Patagonian Region.

ESSENTIALS.

A bleak, barren, inhospitable land. A land of ice, of cold, and of fierce storms. A region inhabited by wandering tribes, who eke out a miserable existence by hunting and fishing.

BEST READING.

BROWN. The countries of the world.

Animals of Patagonia. pp. 218-19; 235-9.

People of Patagonia. pp. 229; 288-9.

Fuegians. pp. 248-54.

SPEARS. Gold diggings of Cape Horn.

The ostriches. pp. 201-6.

Birds and animals of Patagonia. pp. 201-14.

Native life. pp. 151-67.

Fuegians. pp. 47-78; 127-36.

COE. Our American neighbors.

The "Southernmost town in the world." pp. 286-7.

Patagonia described. p. 266.

The ostriches. pp. 267-8.

BATES. Central and South America.

Patagonian Indians. pp. 284-6.

RUPERT. Geographical reader.

Patagonian Indians. pp. 192-6.

CARPENTER. South America.

Savages of Patagonia. pp. 281-3.

MORRIS. Half hours of travel. Vol. I, America.

Natives of Patagonia. pp. 512-22.

BISHOP. A thousand miles walk.

Patagonians. pp. 205-7.

Pampas cattle. pp. 78-80; 84-6.

Colts. pp. 89-92.

Ostrich. pp. 87-9.

VINCENT. Around and about South America.

The Fuegians. pp. 122-7.

Catching ostriches. pp. 141-2.

KNOX. Boy travelers in South America.

Natives of Patagonia. pp. 492-4; 499-506.

Native weapons. pp. 420-3.

Ostriches. pp. 495-7.

KINGSTON. On the banks of the Amazon.

Patagonia; natives. pp. 69-76.

Ostriches. pp. 72-3.

CARPENTER. South America. [Geographical reader.]

Life at Punta Arenas. pp. 159-67.

In the Straits of Magellan. pp. 151-9.

Ostriches. pp. 167-73.

BUTTERWORTH. Over the Andes.

Giant natives of Patagonia. pp. 203-4.

Fuegians. pp. 204-6.

Ostrich hunt. pp. 206-7.

- BALLOU. Equatorial America.
Natives of Patagonia. pp. 279-81.
Fuegians. pp. 287-90.
- HIELD. Glimpses of South America.
The bolas. pp. 213-14.
Fuegians. pp. 217-18.
Patagonians. pp. 208-17.
Ostrich hunt. pp. 210-11.
- MARKWICK AND SMITH. South American republics.
Native giants of Patagonia. pp. 233-4.
- BROWN. Peoples of the world.
Patagonian natives. pp. 282-99.
- DARWIN. Journal of researches. Voyage of the Beagle.
The Fuegians. pp. 245-8.
Tierra del Fuego. pp. 215-67.
Ostriches. pp. 93-6.
- SHAW. Big people and little people of other lands.
Ostriches of Patagonia. pp. 94-7.
- COOPER. Animal life.
Ostriches in Patagonia. pp. 277-81.
- DIXIE. Across Patagonia.
An ostrich hunt. pp. 102-15.

THE CONTINENT OF NORTH AMERICA.

1. Arctic Region.
2. Region of Canada.
3. Region of the United States.
(See separate treatment.)
4. Region of Mexico and Central America.
5. Region of West Indies.
6. Region of the Hawaiian Islands.



FIG. 26.

The Arctic Region.

ESSENTIALS.

The land of the "Northern lights" and of the long day and night. A land of moss and lichens, of icebergs, of snow, and of cold. The home of the seal, the walrus, the reindeer, and the polar bear. A land sparsely inhabited by a simple, rude, semi-civilized people—the Eskimo. A land which marks man's vain struggle to reach the pole.

BEST BOOKS.

BALLANTYNE, R. M. *Fast in the ice.* Mershon. 50c.

A tale of adventure in the polar regions. Descriptive of the ice, walrus, bears, Eskimos, and the dangers of Arctic voyaging.

Grades 6, 7, 8.

SCHWATKA, FREDERICK. *The children of the cold.* Ed. Pub. Co. \$1.25.

Descriptions of the Eskimos. One of the best books of its kind ever written. Illustrated.

Grades 5, 6, 7.

MUNROE, KIRK. *Under the great bear.* 1900. Doubleday. \$1.25.

A tale of the Arctic region, for boys.

Grades 5, 6, 7.

HALL, CAPT. CHAS. W. *Adrift in the ice fields.* Lee. (Fiction.) \$1.00.

A chronicle of the adventures of hunters in the vast ice pack around Hudson Bay. A boy's book of adventure.

Grades 6, 7, 8.

- FORD, JOHN D. An American cruiser in the east. 1898. Barnes. \$2.50.
Descriptive of a cruise in Bering Sea. Interesting. Many illustrations.
Grades 7, 8.
- COMPANION SERIES. The wide world. 1902. Ginn. 25c.
Interesting and readable account of people and places.
Grades 4, 5, 6.
- GEORGE, MARIAN M. Little journeys to Alaska and Canada. 1901.
Flanagan. 50c.
The history of Alaska—climate—child life—Eskimos.
Grades 5, 6.
- NANSEN, DR. FRIDTJAF. Farthest north. 1897. Harper. 2 vols. \$3.00.
A record of the voyage of explorations of the "Fram," and of a fifteen months' sleigh journey by Nansen and Johansen. A fascinating series of adventures. Many beautiful pictures.
Grades 7, 8.
- MUNROE, KIRK. Snowshoes and sledges. 1901. Harper. (Fiction.)
\$1.25.
A stirring boys' story of adventure in the Arctic regions.
Grades 5, 6, 7.
- MUNROE, KIRK. The fur-seal's tooth. 1902. Harper. \$1.25.
A story of Alaskan adventure. Much valuable material. Illustrated.
Grades 5, 6, 7.
- COMPANION SERIES. Our country: West. 1900. Perry Mason. 50c.
A number of short stories describing the Eskimo, reindeer, and seals of northern and western Alaska. Interesting to children.
Grades 6, 7, 8.
- KING, CHARLES F. The land we live in. [Picturesque geographical readers, Bk. V.] 1896. Lee. 56c. net.
Describes the glaciers, the seals, the fishing, and the Indians.
Grades 6, 7, 8.

The Region of Canada.

ESSENTIALS.

Until recently a region of trappers and fur-traders. A region as large as the United States with a population no greater than New York. A region characterized on the north by the severity of the climate and by the abundance of its fur-bearing animals; on the south by its broad belt of valuable forest and by its extensive wheat areas; and on the coast by the most extensive fisheries of the world.

BEST BOOKS.

- SETON-THOMPSON, GRACE G. A woman tenderfoot. [c.1900.] Doubleday. \$2.00.
Interesting episodes of life spent in the wilds of Canada and the west. Illustrated.
Grades 7, 8.
- CARPENTER, F. G. North America. [Geographical reader.] [c.1898.]
Am. Bk. Co. 70c.
Describes the cities of Canada, also the hunting region of Hudson Bay.
Grades 5, 6, 7.

The Region of Mexico and Central America.

ESSENTIALS.

The land of the brown skin and of the adobe; of the sombrero and the spurs; of the red pepper and tortillas. It is a tropical region, wet and unhealthful in the lowlands; drier and cooler in the highlands. The lowlands produce coffee, rubber, tropical fruits, and ornamental woods; its highlands, cochineal and silver.

BEST BOOKS.

BLAKE, M. E., and SULLIVAN, M. F. Mexico. 1888. Lee. \$1.25.

Describes the City of Mexico. Stories of pilgrimages, of the religion, of the government, and of the education are given. Is valuable reading for both teacher and pupil.

Grades 6, 7, 8.

BAYLOR, F. C. Juan and Juanita. 1888. Houghton. \$1.50.

The story of two Mexican children who were captured by the Indians. Their escape four years later, and their journey of four hundred miles through the wilderness to the Texas settlement is thrillingly told.

Grades 5, 6, 7.

CRAWFORD, CORA H. The land of the Montezumas. 1889. Clarke. \$1.00.

Describes a Mexican resort, mining methods, the City of Mexico, and gives also a brief sketch of Mexican history.

Grade 8.

STEPHENS, C. A. The Knockabout Club in the tropics. [c. 1883.]

Estes. \$1.25.

Much information in story form concerning customs and history of the country.

Grades 7, 8.

SWEEDIE, MRS. ALEC. Mexico as I saw it. 1901. Macmillan.

The cock fight; bull fight; ancient ruins. A mass of up-to-date information written in a very interesting way. Fine pictures.

Grades 7, 8.

BAXTER, SYLVESTER. The cruise of a land yacht. Little, Brown. \$1.25.

Customs and scenes of Mexico. In story form.

Grades 7, 8.

OBER, FRED A. The Knockabout Club in search of treasure. [c. 1892.]

Lothrop. \$1.25.

Interesting stories of life among mines, caves, strange places in Mexico in search of buried treasure.

Grades 6, 7, 8.

GEORGE, MARIAN M. A little journey to Mexico. [c. 1901.] Flanagan. 50c.

A description of the country, its history, City of Mexico, homes and home life, food, amusements. Interesting for children.

Grades 5, 6, 7.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

Climate, City of Mexico, products, and people.

Grades 7, 8.

COMPANION SERIES. The wide world. 1902. Ginn. 25c.

A chapter on the boys of Mexico, their amusements and character.

Grades 4, 5.

COMPANION SERIES. Strange lands near home. 1902. Ginn. 25c.

Chapter on the grand plaza of Mexico by Joaquin Miller. Another chapter on a Mexican city.

Grades 5, 6.

HALE, REV. and MISS SUSAN. Family flight through Mexico. 1893. Lothrop. \$1.50.

Descriptions in story form for the grades.

Grades 6, 7, 8.

LE PLONGEON, ALICE D. Here and there in Yucatan. [c. 1889.] Lovell.

Interesting description of pygmies and Caribs, their customs and superstitions.

Grades 7, 8.

CARPENTER, FRANK G. North America. [Geographical reader.] [c. 1898.] Am. Bk. Co. 70c.

Especially interesting to children. Three chapters on the customs and habits of the people.

Grades 6, 7.

KING, CHARLES F. This continent of ours. [The picturesque geography readers.] 1890. Lee. 72c. net.

Several chapters on the climate, people, farming, and gathering cocoa. Well illustrated.

Grades 5, 6, 7.

KNOX, T. W. Boy travelers in Mexico. [c. 1889.] Harper. \$2.00.

The social and political history, resources, manners, and customs of the land of the Aztecs are given in an interesting story form.

Grades 7, 8.

OBER, F. A. Montezuma's gold mines. [c. 1888.] Lothrop. \$1.00.

Tells of the search for golden treasure in an interesting manner.

Grades 7, 8.

FLIPPIN, J. R. Sketches from the mountains of Mexico. [1890.] Standard Pub. Co.

Much information suitable to the teacher.

BALLOU, MATURIN M. Aztec land. 1890. Houghton. \$1.50.

Contains many facts of interest regarding history, scenery, customs, modern and ancient. No illustrations.

Grades 7, 8.

WELLS, D. A. Study of Mexico. 1887. Appleton. \$1.00.

A view of the industrial and social conditions of Mexico.

For teachers.

REID, CHRISTIAN. The land of the sun. 1894. Appleton. \$1.75.

Fiction. Scene laid in Mexico. Mexican life portrayed.

SCHWATKA, FREDERICK. In the land of the cave and cliff dwellers. [c. 1899.] Ed. Pub. Co. \$1.25.

Popular account of the adventures and researches of two expeditions sent to northern Mexico. Much information regarding the cave and cliff dwellers still to be found in Mexico.

Grades 7, 8.

SMITH, F. H. A white umbrella in Mexico. 1889. Houghton. \$1.50.

An artist's experience in Mexico. Well written.

Grade 8.

BUTTERWORTH, HEZEKIAH. *Lost in Nicaragua*. [c. 1898.] Wilde. \$1.00.
Describes the land of coffee farms and banana plantations. Many interesting stories.

Grades 5, 6, 7.

BELL, C. NAPIER. *Tangweera*. 1899. Arnold Sons. 16s.

The record of the experiences of a man who passed his youth among the gentle savages of Central America. Describes the natives, customs, animals, and vegetation. Interesting. A few fine illustrations.

Grades 6, 7, 8.

SQUIER, E. GEORGE. *Adventures on the mosquito shore*. 1891. Hurst. 50c.

The Indians, customs, animal life, fevers, scenery. Well written. Interesting to children.

Grades 6, 7, 8.

The Region of the West Indies.

ESSENTIALS.

A region noted for its exportation of sugar, tobacco, sponges, and tropical fruits. It has a wet, tropical climate and is covered for the most part with forests. Cuba and Puerto Rico, embracing half the area of the West Indies, have recently been freed from the tyrannical control of Spain. In consequence of Spain's repressive rule their great natural wealth has been but little developed.

BEST BOOKS.

KELLOGG, EVA M. C. *Australia and the islands of the sea*. [The world and its people, Bk. VIII.] 1898. Silver. 68c.

Several chapters describing the islands, their government, people, and customs. Well illustrated.

Grades 6, 7, 8.

GEORGE, MARIAN M. *Little journeys to Cuba and Puerto Rico*. [c. 1900.] Flanagan. 50c.

An interesting story of people, habits and customs, food, and productions. Illustrated.

Grades 4, 5, 6.

CARROLL, STELLA W., and HART, E. M. *Around the world*. [Geographical series, Bk. III.] 1901. Morse. 60c.

Tells of the people and scenes in Cuba and Puerto Rico.

Grades 4, 5, 6.

OBER, F. A. *A boy's adventures in the West Indies*. [c. 1888.] Caldwell.

A very interesting account of adventures in the region. Many illustrations and much valuable material.

Grades 5, 6, 7.

ALLEN, ALICE E. *Children of the palm lands*. [c. 1901.] Ed. Pub. Co. 50c.

The scenes in "banana land." Illustrated.

Grades 4, 5.

The Region of the Hawaiian Islands.

ESSENTIALS.

A mild, pleasant, healthful climate. The vegetation is of a tropical nature, dense and luxuriant. The islands produce and export great quantities of sugar, bananas, pineapples, rice, and coffee. The natives are more intelligent, progressive, and gentle-mannered than any other of the inhabitants of the South Sea Islands. These islands are a famous resort for travelers on account of the mild, even climate, the picturesqueness of the scenery, and because of the interesting customs of the natives. They also contain the leper settlements. Until their recent acquisition by the United States, these islands had a monarchical government of their own.

BEST BOOKS.

KELLOGG, EVA M. C. Australia and the islands of the sea. [The world and its people, Bk. VIII.] 1898. Silver. 68c.

A chapter describing the people, their habits and customs, their food, and their life.

Grades 6, 7, 8.

CARROLL, STELLA W., and HART, E. M. Around the world. [Geographical series, Bk. III.] 1901. Morse. 60c.

The people, their food, clothing, houses described.

Grades 4, 5, 6.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

Description of the Hawaiian Islands.

Grades 7, 8.

TWOMBLY, A. S. Hawaii and its people. [The world and its people, Bk. IX.] 1900. Silver. 68c.

Treats of ancient Hawaii and its folklore, the transition period, and the modern period. Though much of the treatment is historical, there is much descriptive matter included. Interesting.

Grades 7, 8.

PRATT, MARA L. Australasia. [People and places here and there, Vol. I.] Ed. Pub. Co. Cloth, 60c.

Native customs; eating poi; the food; the famous volcano; the leper island. Interesting.

Grades 4, 5, 6.

MERIWETHER, LEE. The tramp at home. 1889. Harper. \$1.25.

Description of the volcanoes and of the island of lepers.

Grades 7, 8.

THE COUNTRY OF THE UNITED STATES.

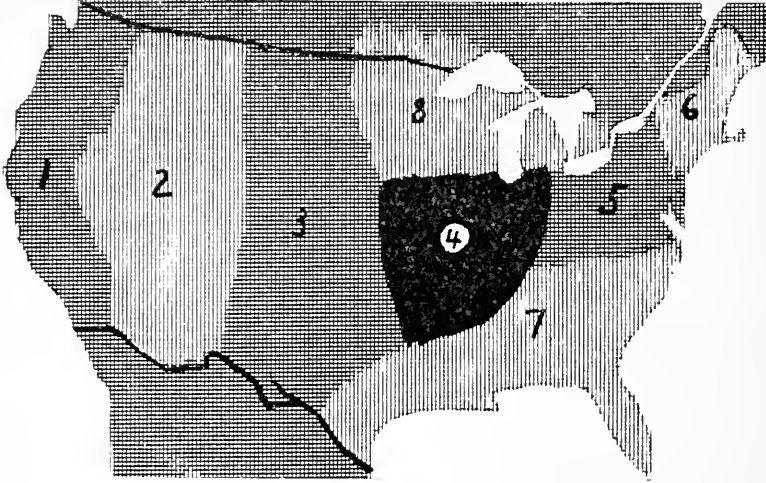


FIG. 27.

1. The Pacific Region. (See special treatment of California.)
2. The Plateau Region.
3. The Grazing or Prairie Region.
4. The Agricultural Region.
5. The Alleghany Region.
6. The Region of Manufactories. (New England.)
7. The Gulf Region.
8. The Lumbering Region.

The Pacific Region.

ESSENTIALS.

A region characterized by a mild climate, by the abundance of its rainfall, by the richness of its gold mines, by the extent of its lumbering areas, and by the variety of its occupations. It is a region whose resources are as yet but little developed.

BEST BOOKS.

CHAMPNEY, ELIZ. W. Three Vassar girls at home. 1888. Estes. \$1.25.

A trip through the West. Experiences in the high mountains. Pueblos of Arizona and California described.

Grades 6, 7, 8.

CARROLL, STELLA W., and HART, E. M. Around the world. [Geographical series, Bk. III.] 1901. Morse. 60c.

Describes gold mining in the West and the chief occupations and scenes in California. Illustrated.

Grades 4, 5, 6.

COMPANION SERIES. Our country: West. 1900. Perry Mason. 50c.

Tells of the lumbermen of the Sierras; of the big trees of California, etc.

Grades 6, 7, 8.

The Plateau Region.

ESSENTIALS.

A region famed for its wild, rugged scenery, for its gold and silver mines, and for its extensive stock ranges. Much of its mineral wealth is yet undeveloped because of the inaccessibility of the region.

BEST BOOKS.

COMPANION SERIES. Our country: West. 1900. Perry Mason. 50c.

A number of interesting short stories of adventure and life in the Rocky Mountains. Illustrated. Valuable information.

Grades 6, 7, 8.

SETON-THOMPSON, GRACE G. A woman tenderfoot. [c. 1900.] Double-day. \$2.00.

Many interesting details of life spent in the West. Illustrated.

Grades 7, 8.

CARPENTER, F. G. North America. [Geographical reader.] [c. 1898.] Am. Bk. Co. 70c.

The wonders and treasures of the Rocky Mountain region described.

Grades 5, 6, 7.

KING, CHARLES F. The land we live in. [Picturesque geographical readers, Bk. V.] 1896. Lee. 56c. net.

Description of the scenery and the mines of gold and silver.

Grades 6, 7, 8.

The Grazing or Prairie Region.

ESSENTIALS.

Once the home of the buffalo. A region of rolling prairie, the rainfall of which is sufficient to furnish feed for countless herds of cattle and sheep.

BEST BOOKS.

COMPANION SERIES. Our country: West. 1900. Perry Mason. 50c.

Tells of pioneer life in Dakota; of the cowboys of the plains; of the cattle trails; and of wild horses.

Grades 6, 7, 8.

SMITH, MINNA C. Our own country. [The world and its people, Bk. III.] Introduction price, 50c.

Several chapters descriptive of the prairie regions.

Grades 5, 6, 7.

MERIWETHER, LEE. The tramp at home. 1889. Harper. \$1.25.

The rough life of Texas cowboys depicted.

Grades 7, 8.

LUMMIS, CHARLES F. A New Mexico David. 1891. Scribner. \$1.25.

Stories and sketches of the Southwest. Tells of cowboy life in New Mexico. Illustrated.

Grades 7, 8.

HOUGH, E. The story of the cowboy. 1898. Appleton. \$1.50.

A very interesting and instructive account of the life of the cowboy on the cattle ranges. Many good pictures.

Grades 7, 8.

The Agricultural Region.

ESSENTIALS.

A region of fertile soil and of sufficient rainfall to make it famous for its production of grain and livestock. A region also famous for the extent of its packing industries and for its excellent facilities for the transportation of its products.

BEST BOOKS.

CARROLL, STELLA W., and HART, E. M. Around the world. [Geographical series, Bk. III.] 1901. Morse. 60c.

Describes the wheat and stock-raising region of Mississippi Valley.

Grades 4, 5, 6.

CARPENTER, F. G. North America. [Geographical reader.] [c. 1898.] Am. Bk. Co. 70c.

A visit to a great wheat farm and a trip through the corn belt described.

Grades 5, 6, 7.

The Alleghany Region.

ESSENTIALS.

A region noted for its oil wells, its coal mines, and its manufactories of steel. The mines are worked for the most part by foreign laborers or by those of foreign extraction. In consequence, the population consists largely of these classes.

BEST BOOKS.

KING, CHARLES F. The land we live in. [Picturesque geographical readers, Bk. IV.] 1897. Lee. 56c. net.

An interesting description of process of making steel, of procuring oil, and of digging out coal. Many illustrations.

Grades 5, 6, 7.

CARROLL, STELLA W., and HART, ESTELLE M. Around the world. [Geographical series, Bk. III.] 1901. Morse. 60c.

Tells of the production of iron, coal, and oil. Illustrated.

Grades 4, 5, 6.

CARPENTER, F. G. North America. [Geographical reader.] [c. 1898.] Am. Bk. Co. 70c.

Chapters describing travels in the coal and oil region.

Grades 5, 6, 7.

The Region of the Manufactories. (New England.)

ESSENTIALS.

A region having a rugged coast line, well adapted for commercial activities and for fishing. Famous in American history as the home of the Pilgrim fathers. A region of short, rapid rivers, furnishing water power for many mills engaged in making cloth, leather goods, machinery, hardware, watches, and firearms.

BEST BOOKS.

KING, CHARLES F. The land we live in. [Picturesque geographical readers, Bk. III.] 1893. Lee. 56c. net.

Tells of the sights and scenes to be observed in a New England manufacturing town. Describes the making of shoes, of thread, books, watches, a suit of clothes, etc.

Grades 4, 5, 6.

HALE, REV. E. E. *and* MISS SUSAN. A family flight around home. [c. 1884.] Lothrop. \$1.50.

Relates many stories connected with the historic places of New England.
Describes present-day scenes.

Grades 6, 7, 8.

CARPENTER, F. G. North America. [Geographical reader.] [c. 1898.] Am. Bk. Co. 70c.

Describes the commerce and manufacturing industry of this region.

Grades 5, 6, 7.

MERIWETHER, LEE. The tramp at home. 1889. Harper. \$1.25.

Tells how factory operatives live and work. Interesting.

Grades 6, 7, 8.

COMPANION SERIES. Our country: East. 1901. Perry Mason. 50c.

Describes the maple sugar camps, cranberry farms, etc.

Grades 7, 8.

The Gulf Region.

ESSENTIALS.

The home of the negro population and once the seat of slavery. A region characterized by its great cotton, rice, and tobacco plantations, and by its moist, hot climate.

BEST BOOKS.

KING, CHARLES F. The land we live in. [Picturesque geographical readers, Bk. IV.] 1897. Lee. 56c. net.

Describes the cotton field, how the cotton is ginned, and the various processes through which it is passed. Interesting. Well illustrated.

Grades 5, 6, 7.

CHAMPNEY, ELIZABETH W. Three Vassar girls at home. 1888. Estes. \$1.25.

Scenes in the South.

Grades 6, 7, 8.

CARROLL, STELLA W., *and* HART, E. M. Around the world. [Geographical series, Bk. III.] 1901. Morse. 60c.

A chapter on cotton production.

Grades 4, 5, 6.

CARPENTER, F. G. North America. [Geographical reader.] [c. 1898.]

Am. Bk. Co. 70c.

Several chapters describing scenes on a trip through the cotton belt.

Grades 5, 6, 7.

MERIWETHER, LEE. The tramp at home. 1889. Harper. \$1.25.

Life among Southern farmers depicted.

Grades 7, 8.

COMPANION SERIES. Our country: East. 1901. Perry Mason. 50c.

Describes farms, everglades, villages, and cities of the South.

Grades 6, 7, 8.

The Lumbering Region.

ESSENTIALS.

A region famed for its production and exportation of pine lumber. It is a region having excellent facilities for transportation owing to its nearness to the Great Lakes. This region is thinly populated by a people who in the main are engaged in the occupation of lumbering.

BEST BOOKS.

CARPENTER, F. G. North America. [Geographical reader.] [c. 1898.]
Am. Bk. Co. 70c.

Describes life in the forests around the Great Lakes. The method of converting the tree in the forest to the lumber of the market told in an interesting fashion.

Grades 5, 6, 7.

COMPANION SERIES. Our country: East. 1901. Perry Mason. 50c.

Describes the various points of interest to be seen about the Great Lakes.

Grades 7, 8.

The Region of California.

ESSENTIALS.

A land of fruit and flowers. A region characterized by the variety of its climate, its resources, and its occupations. It is a region famous for its gold mines, its redwood forests, its vast wheat areas, and for its vineyards, orange groves, and orchards.

BEST BOOKS.

CARROLL, STELLA W., and HART, E. M. Around the world. [Geographical series, Bk. III.] 1901. Morse. 60c.

Describes fruit-raising, the production of ostrich feathers, Indian baskets, Yosemite, and other things and places of interest.

Grades 4, 5, 6.

SEXTON, ELLA M. Stories of California. 1902. Macmillan. \$1.00.

Recounts in simple narrative the early conditions and subsequent development of California. Mining stories. Days of the Missions. Stories of occupation, of animals, and of the climate. Full of information. Well illustrated.

Grades 7, 8.

COMPANION SERIES. Our country: West. 1900. Perry Mason. 50c.

An account of the big trees of California, of raisin-making, of Death Valley, etc. Valuable information.

Grades 6, 7, 8.

CARPENTER, F. G. North America. [Geographical reader.] [c. 1898.]
Am. Bk. Co. 70c.

Describes scenes in and occupations of the people.

Grades 5, 6, 7.

MERIWETHER, LEE. The tramp at home. 1889. Harper. \$1.25.

Life in the mountains and among the mines described.

Grades 7, 8.

KING, CHARLES F. The land we live in. [Picturesque geographical readers, Bk. V.] 1896. Lee. 56c. net.

An extended description of characteristic scenes and occupations of California.

Grades 6, 7, 8.

THE CONTINENT OF EUROPE.

Characteristic Regions:

1. Region of the British Isles.
2. Region of the Netherlands.
3. Region of France and Belgium.
4. Region of Germany and Austria.
5. Region of Scandinavia.
6. Region of Russia and Siberia.
7. Region of Turkey. (European and Asiatic.)
8. Region of Greece.
9. Region of Italy.
10. Region of Switzerland.
11. Region of Spain and Portugal.

The Region of the British Isles.

ESSENTIALS.

Generally recognized as the most powerful country of the world. A country ranking first in the value of its manufactures and in the extent of its commercial activity. A country whose advancement in commerce, in manufactures, in forcefulness generally among nations has been wonderful. It contains the metropolis of the world, which is noted, besides, for its shipping, its castles, its churches, its libraries, its museums, and its picture galleries. The British people have also won a worthy place in the world of literature, of architecture, and of art. Some of the world's most celebrated poets and dramatists were of English birth.

BEST BOOKS.

COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.

Two chapters on London and the Westminster Abbey.

Grades 6, 7, 8.

KING, CHARLES F. Northern Europe. 1897. Lee. 60c. net.

Scenes about the countries and cities of the British Isles. Interesting.

Grades 6, 7, 8.

MATÉAUX, C. L. Rambles around London tower. 1891. Cassell. \$1.00.

Description of tower, abbey, parliament, and monuments. Illustrated.

Grade 8, and teacher.

PRATT, MARA L. England. [People and places here and there, Vol. VI.]

Ed. Pub. Co. Cloth. 60c.

Early history—appearance and customs of people. Interesting. Illustrated.

Grades 5, 6, 7.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.]

[c. 1892.] Silver. 60c.

Pictures of life on the islands. Interesting.

Grades 6, 7.

CARPENTER, F. G. Europe. [Geographical reader.] [c. 1902.] Am. Bk. Co. 70c.

Several chapters on scenes in the various parts of the British Isles. Interesting. Well illustrated.

Grades 6, 7.

KNOX, T. W. Boy travelers in Great Britain and Ireland. 1898. Harper. \$2.00.

Excellent material. Well written.

Grades 7, 8.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

Description of London; ancient history; monuments.

Grades 7, 8.

CHAMPNEY, ELIZABETH W. Three Vassar girls in England. 1884. Estes. \$1.25.

Information regarding history and customs of people.

Grades 6, 7, 8.

The Region of the Netherlands.

ESSENTIALS.

The region of dikes, of windmills, and of canals. The most extensive reclaimed region in the world. A region of small farms tilled by a thrifty, prosperous, happy people—a people famous in history for their love of civil and religious liberty and for the hardships they suffered in establishing their independence.

BEST BOOKS.

PRATT, MARA L. Northern Europe. [People and places here and there, Vol. V.] Cloth, 60c.

Tells of cities—Amsterdam, Hague, and others. Chapter on Dutch life.

Grades 5, 6, 7.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Chapter describing windmills, sunsets, and scenes. Interesting.

Grades 6, 7.

CARPENTER, F. G. Europe. [Geographical reader.] Am. Bk. Co. 70c.

A chapter on the street scenes, and life of several Dutch cities. Well illustrated. Interesting.

Grades 6, 7.

COMPANION SERIES. The wide world. 1902. Ginn. 50c.

Interesting to children.

Grades 4, 5, 6.

HOUGH, P. M. Dutch life in town and country. [Our European neighbor series.] 1902. Putnam. \$1.20 net.

Description of villages; characteristics; peasants' customs; amusements; school life; religion. Well illustrated.

For teachers.

GEORGE, M., and DEAN, IDA. Little journeys to Holland, Belgium, and Denmark. [c. 1902.] Flanagan. 50c.

Interesting account of country, people, and customs of Holland. Illustrated.

Grades 5, 6, 7.

RUPERT, WM. W. A geographical reader. Leach. 65c.

Description of appearance of country and how it was reclaimed. Chapter on skating and on the character of the people.

Grades 7, 8.

COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.

A chapter on scenes in Holland and another on work and play in Belgium.

Grades 6, 7, 8.

STOCKTON, FRANK R. Personally conducted. 1890. Scribner. \$2.00.

An excursion through Holland and Belgium. Customs, manners, and scenes.

Grades 6, 7, 8.

The Region of France.

ESSENTIALS.

The people of France form two distinctive classes: (1) The aristocracy of Paris, who are gay and pleasure-loving; (2) The peasant classes, who are thrifty, hard working, and live in the villages and country, following agriculture and manufacturing as occupations. Paris, once the scene of the bloody riots of the French Revolution, is now famous as an art and fashion center. It is visited by tourists for its beautiful palaces, its parks, and for its boulevards. The country produces and exports wines, champagnes, porcelains, silk, and tapestries.

BEST BOOKS.

GEORGE, M., and DEAN, IDA. Little journeys to Holland, Belgium, and Denmark. [c. 1902.] Flanagan. 50c.

Sights and scenes in the land of the wooden shoe. Interesting. Illustrated.

Grades 5, 6, 7.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Two chapters describing people of France.

Grades 6, 7.

CARPENTER, F. G. Europe. [Geographical reader.] [c. 1902.] Am. Bk. Co. 70c.

Several chapters on the life, customs, and sights in France and Belgium. Well illustrated.

Grades 6, 7.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

The scenes in the streets of the important cities.

Grades 7, 8.

LYNCH, HANNAH. French life in town and country. [Our European neighbor series.] Putnam. \$1.20 net.

Descriptive of home and social life, amusements, education, and religion of the French people. Well illustrated.

For teachers.

CHAMPNEY, ELIZABETH W. Three Vassar girls in France. [c. 1888.] Estes. \$1.25.

Much information regarding the people.

Grades 6, 7, 8.

PRATT, MARA L. Northern Europe. [People and places here and there, Vol. V.] Ed. Pub. Co. Cloth, 60c.
Tells of the battleground of Waterloo.

Grades 5, 6, 7.

KNOX, T. W. Boy travelers in central Europe. 1893. Harper. \$2.00.
Well written. Instructive. Interesting to children.

Grades 6, 7, 8.

The Region of Germany and Austria.

ESSENTIALS.

The land of castles, of quaint villages, and of picturesque cathedrals. A land celebrated for the beauty of its Rhenish scenery. It is famous for its educational system, for its industrial and commercial activity, and for its military strength. Its people are progressive, thrifty, and economical. In the fields of poetry, of diplomacy, and of music, Germany has furnished the world's most illustrious names.

BEST BOOKS.

BROWNE, MAGGIE. Chats about Germany. Cassell. [The world in picture series.] 75c.

Describes toy-making, Rhine, Black Forest, and several of the principal cities.

Grades 5, 6.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Scenes on Rhine and in Germany. Interesting.

Grades 6, 7.

TAYLOR, BAYARD. Boys of other countries. 1899. Putnam. \$1.25.
The story of two herdsboys on the borders of Saxony. Interesting.

Grades 5, 6, 7.

DAWSON, WM. H. German life in town and country. [Our European neighbor series.] 1903. Putnam. \$1.20 net.

Peasant life, military service, education, religious life, amusements, local government. Well illustrated.

For teachers.

CARPENTER, F. G. Europe. [Geographical reader.] 1902. Am. Bk. Co. 70c.

Several chapters on manners and customs of Germans and the people of Austro-Hungary. Brief sketch of government. Well illustrated.

Grades 6, 7.

The Region of Scandinavia.

ESSENTIALS.

A region of rugged coasts, of deep indentations, and of precipitous bluffs. A bleak, unpromising land, inhabited by a thrifty, hardy people, whose chief occupations are fishing, farming, and lumbering.

BEST BOOKS.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

Animals; appearance of the country, products and scenes. Aurora borealis. Laplanders. Good.

Grades 7, 8.

TAYLOR, BAYARD. Boys of other countries. 1899. Putnam. \$1.25.
Story of the writer's adventures with a little postboy in northern part of Sweden.
Interesting.

Grades 5, 6.

DU CHAILLU, PAUL. Land of the midnight sun. 1882. 2 vols. Harper. \$5.00.

Interesting material, well written, on customs, habits, etc., of people of Scandinavia.

Grades 7, 8, and for teachers.

PRATT, MARA L. Northern Europe. [People and places here and there, Vol. V.] Ed. Pub. Co. Cloth, 60c.

Describes Lapps, Norway, Legend of Skadi. Interesting.

Grades 5, 6, 7.

CARPENTER, F. G. Europe. [Geographical reader.] 1902. Am. Bk. Co. 70c.

Two interesting chapters on travel in the Scandinavian peninsula. Well illustrated.

Grades 6, 7.

COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.

Describes life in Sweden and Norway.

Grades 6, 7, 8.

KING, CHARLES F. Northern Europe. [Picturesque geographical readers, Bk. VI.] Lee. 60c. net.

Account of people, places, and occupations.

Grades 6, 7, 8.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Chapters on Scandinavia and Denmark. Interesting.

Grades 6, 7.

COMPANION SERIES. The wide world. 1902. Ginn. 25c.

Interesting description of people, customs, sports, etc.

Grades 5, 6, 7.

COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.

The sports, climate, and people described.

Grades 6, 7, 8.

The Region of Russia and Siberia.

ESSENTIALS.

The land of the political exile. A country having an autocratic government, inhabited by a people the peasant classes of which are in ignorance and poverty. A country of vast area and great natural resources as yet largely undeveloped. It is a region characterized on the extreme north by its frozen tundras, inhabited by scattered Laplanders; by its forests of pine, oak, and beech in its productive central part, and by its dry and arid steppes on the south.

BEST BOOKS.

PALMER, FRANCIS H. E. Russian life in town and country. [Our European neighbor series.] Putnam. \$1.20 net.

Describes peasants, priests, government, Jewish life, education, military life, and religion. Well illustrated.

For teachers.

- PRATT, MARA L. Northern Europe. [People and places here and there, Vol. V.] Ed. Pub. Co. 60c.
Describes the tundras and steppes, and Crimean war
Grades 5, 6, 7.
- COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.
Customs and habits of Russian people, their religion, palaces, etc.
Grades 6, 7.
- CARPENTER, F. G. Europe. [Geographical reader.] 1902. Am. Bk. Co. 70c.
Good description of peoples, occupations, and sights to be seen. Well illustrated.
Grades 6, 7.
- COMPANION SERIES. The wide world. 1902. Ginn. 25c.
Interesting description of children, people; their habits and customs.
Grades 4, 5.
- BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.
Describes manners and customs of the people; wolves; methods of travel; despotism of government.
Grades 7, 8.
- TAYLOR, BAYARD. Boys of other countries. 1899. Putnam. \$1.25.
Story of serfs of Russia. Interesting to children.
Grades 5, 6, 7.
- STEVENS, THOMAS. Through Russia on a mustang. Ed. Pub. Co. \$1.00.
Story of a ride from Moscow to the Black Sea by a newspaper man, to report on the conditions, manners, and customs of the people. Illustrated. Interesting.
Grades 7, 8.
- PHILLIPS, E. C. All the Russias. [The world in picture series.] Cassell. 50c.
Story of life and travel. Includes an account of Crimean war. Illustrated.
Grades 6, 7.
- RUPERT, WM. R. A geographical reader. Leach, Shewell. 65c.
Description of the country and fairs and nihilists. Interesting story of a political exile.
Grades 7, 8.
- FROST, THOMAS. Modern explorers. 1890. Cassell. \$1.00.
A very interesting account of adventures in Arctic regions.
Grades 7, 8.
- FORD, JOHN D. An American cruiser in the East. 1898. Barnes. \$2.50.
Description of natives, their manners and customs, and modes of life. Interesting. Many pictures.
Grades 7, 8.
- KENNAN, GEORGE. Siberia and the exile system. 2 vols. 1891. Century. \$6.00.
The series of brilliant articles which appeared in the Century Magazine a few years ago and which created a sensation. The facts have never been disproven. Very interesting.
Grade 8, and for teachers.
- KENNAN, GEORGE. Tent life in Siberia. 1902. Putnam. \$1.25.
A personal narrative of life in Siberia. Gives an idea of inhabitants, scenery, customs, and general features of the country. Written in an interesting manner. Children enjoy it.
Grades 6, 7, 8.

HENTY, G. A. Condemned as a nihilist. 1892. Scribner. (Fiction.) \$1.50.

A very interesting boy's book of banishment and final escape from Siberia. Describes mines of Kara. Illustrated.

Grades 7, 8.

HILLARD, ANDREW. Under the black eagle. Scribner. (Fiction.) \$1.00.

Stirring story of a boy of Russian mother and English father. He was exiled to Siberia for refusing to furnish information wanted by police. His sufferings and ultimate escape are told in a realistic manner. Illustrated.

Grades 5, 6, 7.

CARPENTER, FRANK G. Asia. [Geographical reader.] Am. Bk. Co. 60c.

Chapter on Siberia and the Trans-Siberian Railroad. Illustrated.

Grades 6, 7.

SMITH, MARY CATE. Life in Asia. [World and its people, Vol. VI.]

1900. Silver. 60c.

Many stories of the people, their manners and customs. Interesting, simple style

Grades 6, 7.

WADE, MARY HAZELTON. Our little Russian cousin. 1901. Page. 50c.

One of the best stories of the kind.

Grades 4, 5, 6.

KING, CHARLES F. Northern Europe. [Picturesque geographical readers, Bk. VI.] Lee. 60c. net.

Customs of the people, their food, religion, etc.

Grades 6, 7, 8.

The Region of Turkey. (European and Asiatic.)

ESSENTIALS.

This region is the chief seat of Mohammedanism. It is inhabited by a non-progressive, fanatical race of people who are held in check by the Sultan, who is vested with autocratic powers. The chief city of the empire is Constantinople, which is noted for its temples, its mosques, and for its peculiar street scenes. This city occupies a strategic point on the Dardanelles, and in consequence, serves to block, to a degree, the ambitions of Russia. Turkey has played an important part in history. During the Middle Ages it was the region of the struggles of the Crusaders; in modern times, of the Crimean war. The country is largely one of pasturing rather than of agriculture, although grain, tobacco, cotton, and tropical fruits are grown to some extent. Manufactures are few, although carpets, cloth, and jewelry are made by hand.

BEST BOOKS.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Description of Constantinople.

Grades 6, 7.

CRAWFORD, F. MARION. Constantinople. 1895. Scribner. \$1.50.

Description of appearance, types of people, street scenes, manners and customs. Finely illustrated.

For teachers mainly.

THOMSON, H. C. The outgoing Turk. 1897. Appleton. \$4.00.

A wealth of material for teachers. Fine pictures.

CARPENTER, F. G. Europe. [Geographical reader.] 1902. Am. Bk. Co. 70c.

Chapter descriptive of Constantinople, also one on nature of Turkish rule and Mohammedan religion. Illustrated.

Grades 6, 7.

COMPANION SERIES. Under sunny skies. 1902. Ginn. 25c.

Description of the education of young Turks.

Grades 5, 6, 7.

RUPERT, WM. W. A geographical reader. Leach, Shewell. 65c.

A characterization of the Turks and a description of Constantinople.

Grades 7, 8.

CARPENTER, F. G. Asia. [Geographical reader.] Am. Bk. Co. 60c.

Chapter on travels among the Turks. Illustrated. Interesting.

Grades 6, 7.

The Region of Greece.

ESSENTIALS.

The birthplace of literature, liberty, and art. A region encircled with a halo of antiquity. The country most famous in the world for the degree of the development of its ancient civilization.

BEST BOOKS.

COMPANION SERIES. Under sunny skies. 1902. Ginn. 25c.

How Greek children live and amuse themselves. Illustrated.

Grades 5, 6, 7.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Chapter on the "Land of the glorious past."

Grades 6, 7.

CARPENTER, F. G. Europe. [Geographical reader.] 1902. Am. Bk. Co. 70c.

Chapter describing modern Greece. Illustrated.

Grades 6, 7.

The Region of Italy.

ESSENTIALS.

The Italian people are famous for their achievements in the fields of music, painting, and sculpturing, in which departments they have furnished the world's most renowned names. The country is visited yearly by many tourists who are attracted by its picturesque and historic features, among which the best known are the leaning tower of Pisa, the cathedral of St. Peter's, the Coliseum, the catacombs, the gondolas of Venice, the Vatican, and the ruins of Pompeii and Herculaneum.

Italy has a mild and equable climate, which is well adapted to grape-growing and silk production, in which industries she is among the greatest

in the world. A considerable portion of the people are engaged in spinning and weaving silk, and in manufacturing macaroni, glass, and mosaics.

BEST BOOKS.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

Description of art treasures, manners, and customs of the important cities of Italy.

Grades 7, 8.

VILLARI, LUIGI. Italian life in town and country. [Our European neighbor series.] Putnam. 1903. \$1.20 net.

Description of the aristocracy and middle and peasant classes. Social and home life, amusements, education, etc.

For teachers.

COMPANION SERIES. Under sunny skies. 1902. Ginn. 25c.

Treats of chestnut farms, Mount Vesuvius, and food of peasants. Interesting. Illustrated.

Grades 5, 6, 7.

MERIWETHER, LEE. Afloat and ashore on the Mediterranean. 1892. Scribner. \$1.50.

Interesting material on countries of Mediterranean.

Grade 8, and teachers.

TAINÉ, H. Italy: Florence and Venice. Holt. \$2.50.

Much valuable information for teacher.

CARPENTER, F. G. Europe. [Geographical reader.] 1902. Am. Bk. Co. 70c.

Several chapters describing Venice, Rome, Mount Vesuvius, etc. Illustrated.

Grades 6, 7.

COMPANION SERIES. The wide world. 1902. Ginn. 25c.

Interesting to children.

Grades 4, 5, 6.

STODDARD, JOHN L. Florence, Naples, Rome. [c. 1898.] Vol. 8. \$3.00.

Interesting descriptions, beautiful pictures.

TAINÉ, H. Italy: Rome and Naples. Holt. \$2.50.

Valuable and detailed information. Suitable to teacher only.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Description of the "treasure house" of Europe. Interesting.

Grades 6, 7.

COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.

Describes a climb up Vesuvius, and the Venetian gondola.

Grades 6, 7, 8.

CHAMPNEY, ELIZABETH W. Three Vassar girls in Italy. [c. 1885.] Estes. \$1.25.

Describes for children the sights to be seen in Italy.

Grades 6, 7, 8.

STOCKTON, FRANK R. Personally conducted. 1890. Scribner. \$2.00.

A tour of Italy. Interesting.

Grades 6, 7, 8.

The Region of Switzerland.

ESSENTIALS.

The most noted summer resort of the world. A region of magnificent scenery; of mountains, lakes, and glaciers. A region noted for the independent, liberty-loving spirit of its people, and for the skill they show in handwork of a mechanical nature.

BEST BOOKS.

HEADLEY, J. T. Mountain adventures in various parts of the world. 1899. Scribner. \$1.00.

Thrilling adventures. Experience in climbing the famous peaks of the Alps.
Grades 7, 8.

LITTLE KONRAD; the Swiss boy. Ed. Pub. Co. 40c.
A pretty story of life in Switzerland.

Grades 4, 5, 6.

BOUVET, MARGUERITE. Bernardo and Laurette. 1901. McClurg. 75c. net.

A pretty story of two little people of the Alps. Good for the geographical setting.

Grades 5, 6, 7.

CHAMPNEY, ELIZABETH W. Three Vassar girls in Switzerland. Estes. \$1.25.

Description of mountains and scenery and lakes. Many stories of beliefs of people.

Grades 5, 6, 7.

STORY, ALFRED THOMAS. Swiss life in town and country. [Our European neighbor series.] 1903. Putnam. \$1.20 net.

The history, education, industries, homes, children, religious life, etc. Well illustrated.

For teachers.

CARPENTER, F. G. Europe. [Geographical reader.] 1902. Am. Bk. Co. 70c.

Three chapters describing the beauties of the upper Rhine and the Alps. Well illustrated.

Grades 6, 7.

KNOX, T. W. Boy travelers in central Europe. 1893. Harper. \$2.00.
Well written description of sights in the Alps.

Grades 6, 7, 8.

The Region of Spain and Portugal.

ESSENTIALS.

One of the picturesque features of this region is its old palaces and churches of Moorish origin. Formerly the region was the center of European commerce and wealth and possessed more rich foreign colonies than any other country. Now it has lost all of its principal colonies, and is an impoverished country, because of the improvidence of its people and because of its mediæval method of governing. Along the coast its climate is mild and equable; its interior is subject to great extremes of temperature. The

people are for the most part engaged in agriculture, which they carry on by crude methods. This region produces lead, quicksilver, wine, olives, cork, raisins, and Castile soap.

BEST BOOKS.

HIGGIN, L. Spanish life in town and country. [Our European neighbor series.] 1902. Putnam. \$1.20 net.

Land and people; national character; amusements; government; education; chapter on Portuguese life. Well illustrated.

For teachers.

HALE, SUSAN. A family flight through Spain. [c. 1883.] Lothrop. \$1.50.

Many interesting descriptions of life and people—ancient and modern. Illustrated.

Grades 6, 7, 8.

FINCK, HENRY T. Spain and Morocco. 1891. Scribner. \$1.25.

A tourist's account—describes bullfights, wine industry, smugglers. Interesting. No illustrations.

Grade 8, and for teachers.

COMPANION SERIES. Under sunny skies. 1902. Ginn. 25c.

Two chapters describing cities of Toledo, Cordova, and Granada. Interesting. Illustrated.

Grades 5, 6, 7.

COE, FANNY E. Modern Europe. [World and its people, Vol. V.] 1892. Silver. 60c.

Describes scenes on streets and the bullfights of Spain and Portugal.

Grades 6, 7.

CARPENTER, F. G. Europe. [Geographical reader.] 1902. American Book Co. 70c.

Describes cities of Spain and Portugal. Well illustrated.

Grades 6, 7.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

The Alhambra, art galleries, and remnants of Moorish occupation.

Grades 7, 8.

COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.

A chapter describing Toledo and Cordova.

Grades 6, 7, 8.

SCOTT, S. P. Through Spain. 1886. Lippincott. \$5.00.

Much interesting material regarding ancient and modern Spain. Well illustrated.

Grades 7, 8.

HIGGIN, L. Spanish life in town and country. [Our European neighbor series.] 1902. Putnam. \$1.20 net.

Land and people—national characteristics; amusements; government; education; with chapter on Portuguese life. Well illustrated.

For teachers.

THE CONTINENT OF AFRICA.

1. Region of the Barbary States.
2. Region of the Sahara Desert.
3. Region of the Nile.
4. The Congo Region.
5. Region of South Africa.



FIG. 28.

The Region of the Barbary States.

ESSENTIALS.

The land of pirates and the stronghold of Mohammedanism. A land for the most part barren and undeveloped, interspersed, however, with fertile oases, which produce olives, dates, and grapes. Many of the inhabitants of these countries are barbarous, cruel, treacherous, and unprogressive.

BEST BOOKS.

BONSAL, STEPHEN. Morocco as it is. 1893. Harper. \$2.00.

Much interesting information regarding manners and customs of Moorish people. Well illustrated.

Grades 7, 8.

BRIDGMAN, F. A. Winters in Algeria. 1890. Harper. \$2.50.

The people—their customs, shrines, children, legends. Interesting to children. Illustrated.

Grades 7, 8.

THOMSON, JOSEPH. Travels in the Atlas and southern Morocco. 1889. Longmans. \$3.00.

A personal narrative of exploration. Excellent material. Well illustrated.

Grades 7, 8.

OBER, FRED A. The Knockabout Club in northern Africa. 1890. Estes. \$1.25.

Written for children. Snake charmers; Arab dens; in a private city; lion hunt, etc. Interesting. Illustrated.

Grades 5, 6, 7.

COMPANION SERIES. Under sunny skies. 1902. Ginn. 25c.

Description of a trip through Moorish country.

Grades 5, 6, 7.

BADLAM, ANNA B. Views in Africa. [World and its people series, Bk. VII.] 1900. Silver. 72c.

Description of appearance of country; customs and habits of its people; the gathering of dates.

Grades 6, 7, 8.

FINCK, HENRY I. Spain and Morocco. 1891. Scribner. \$1.25.

An account of a tourist. Describes scenes, customs, etc. Interesting. No illustrations.

Grades 7, 8, and for teachers.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

Describes slave markets and street scenes.

Grades 7, 8.

The Sahara Region.

ESSENTIALS.

A region of dates, ostriches, and camels. A region of rolling, sandy wastes, broken only at great intervals by oases, and sparsely peopled by wandering tribes of Arabs.

BEST BOOKS.

BADLAM, ANNA B. Views in Africa. 1900. [World and its people, Bk. VII.] Silver. 72c.

Description of the desert—its sand storms, its oases, its animal life, and its camels. Interesting.

Grades 6, 7, 8.

KINGSTON, W. H. G. Saved from the sea. (Fiction.) 1884. Nelson. \$1.25.

The crew of a shipwrecked vessel is cast on the shore of northern Africa. Their adventures in the Sahara. Boy's book. Illustrated.

Grades 6, 7, 8.

KNOX, T. W. In wild Africa. [c. 1895.] Harper. \$2.00.

Adventures of two boys in a journey through the Sahara Desert. Describes salt lakes, Arab horses, hunting ostriches, sand storms, caravan trade, etc. Good illustrations.

Grades 6, 7, 8.

BRIDGMAN, F. A. Winters in Algeria. 1890. Harper. \$2.50.

Describes sand storms and scenes on the desert, oases, etc. Interesting to children.

Grades 6, 7, 8.

COMPANION SERIES. Under sunny skies. 1902. Ginn. 25c.

Describes experiences in crossing the desert; sand storms; oases.

Grades 5, 6, 7.

ALLEN, ALICE E. Children of the palm lands. [c. 1901.] Ed. Pub. Co. 50c.

A visit to the land of dates. The camels and caravans described.

Grades 4, 5.

The Nile Region.

ESSENTIALS.

A land of great antiquity, of mummies, of pyramids, and of the Sphinx. It is a land which has played a great and worthy part in the history of the civilization of the world. Its modern inhabitants are dependent for their crops and living, as were the inhabitants centuries ago, upon the annual overflow of the Nile.

BEST BOOKS.

CHESNEY, J. Land of the pyramids. 1896. [The world in pictures.] Cassell. 75c.

Gives a short sketch of Egyptian history, followed by descriptions of modern Egypt, its life, physical features, art, etc.

Grades 6, 7.

HALE, REV. E. E. Family flight over Egypt and Syria. 1882. Lothrop. \$1.50.

Account, written for children, of ancient and modern Egypt. Many illustrations.

Grades 6, 7, 8.

KNOX, T. W. Boy travelers in Egypt and Holy Land. 1882. Harper. \$2.00.

Interesting and instructive information regarding relics of art, civilization, customs of people, etc. Well illustrated.

Grades 6, 7.

OPTIC, OLIVER. Up and down the Nile. [c. 1894.] Lee. \$1.25.

Much information interesting to children. Put in story form.

Grades 6, 7, 8.

BADLAM, ANNA B. Views in Africa. [World and its people series, Bk. II.] Silver. 72c.

Description of the Nile, including its source, the use it is put to, etc.

Grades 6, 7, 8.

WALLACE, S. E. The repose in Egypt. 1888. Hurst. 75c.

Interesting. Very good material for children. Rise of the Nile, pilgrimage to Mecca, legends of the land.

Grades 7, 8.

EDWARDS, A. B. A thousand miles up the Nile. 1888. Burt. \$1.00.

Much information regarding ancient Egypt, together with sights to be seen in modern times. No illustrations. Good for teacher.

Grade 8.

TAYLOR, BAYARD. Boys of other countries. 1899. Putnam. \$1.25.

Interesting story of a visit to the Pasha. Tells of the many pet animals of the natives.

Grades 5, 6, 7.

BALLOU, MATHURIN M. Footprints of travel. 1896. Ginn. 60c.

Description of the pyramids, the Sphinx, desert, and ancient Egypt.

Grades 7, 8.

RUPERT, WILLIAM R. A geographical reader. Leach, Shewell. 65c.

Description of Suez Canal, caves, and the pyramids.

Grades 7, 8.

The Congo Region.

ESSENTIALS.

The region famous for the explorations of Stanley and Livingston and for furnishing the first slaves to the South. It is a region whose vegetation is dense and luxuriant; whose climate is hot, moist, and unhealthful; and whose inhabitants are wild, savage tribes of pygmies and cannibals. It is the home of gorillas and of elephants; and is the ivory-producing center of the world. In general, it is a region unexplored, uncivilized, and undeveloped.

BEST BOOKS.

STANLEY, HENRY M. Through the dark continent. 1878. 2 vols. Harper. \$7.50.

A mine of interesting material for both teachers and children.

Grade 8.

KINGSTON, W. H. G. In the wilds of Africa. 1884. (Fiction.) Nelson. \$1.25.

Adventures in Congo region. Much valuable information told in an interesting way. A boy's tale.

Grades 6, 7, 8.

BADLAM, ANNA B. Views in Africa. [World and its people series, Bk. VII.] Silver. 72c.

Description of the Congo region, its people, views and scenes of the tropical forests.

Grades 6, 7, 8.

FROST, THOMAS. Modern explorers. 1890. Cassell. \$1.00.

An account of Sir Samuels Baker's exploration of the lake region of Africa. Also Livingston's and Stanley's expeditions.

Grades 6, 7, 8.

JANKS, TUDOR. The boy's book of exploration. 1900. Doubleday. \$2.00.

An interesting account of attempts made to explore Africa. Livingston's and Stanley's expeditions in detail. Interesting.

Grades 7, 8.

DU CHAILLU, PAUL. King Mombo. 1902. Scribner. \$1.50.

Interesting series of adventures, well illustrated.

Grades 7, 8.

DU CHAILLU, PAUL. My Apingi kingdom. Harper. \$1.00.

Interesting to children.

Grades 7, 8.

DU CHAILLU, PAUL. Lost in the jungle. 1898. Harper. \$1.00.

Interesting to children.

Grades 7, 8.

DU CHAILLU, PAUL. Adventures in the great forest of Africa. 1890. Harper. \$1.75.

Many stories of gorillas.

Grades 7, 8.

KNOX, T. W. The boy travelers on the Congo. 1898. Harper. \$2.00.

Adventures of two boys, with Henry M. Stanley. Interesting. Illustrated.

Grades 6, 7, 8.

WAUTERS, A. J. Stanley's Emin Pasha expedition. 1890. Lippincott. \$2.00.

Account of Stanley's memorable relief expedition to the interior of Africa. Much information regarding the country and its inhabitants and appearance.

Grades 7, 8.

The Region of South Africa.

ESSENTIALS.

The land of the Boers. A region of agriculture and herding, and famous for its mines of gold and diamonds. Its native population consists of fierce tribes of Kaffirs and Zulus.

BEST BOOKS.

CAMERON, V. L. Jack Hooper. 1887. Nelson. \$1.25.

An account of a boy's adventure at sea and in South Africa. A boy's book.

Grades 6, 7, 8.

BUTTERWORTH, HEZEKIAH. Traveler tales of South Africa. [c. 1900.]

Estes. \$1.50.

Many stories illustrative of life in South Africa. A description of Kruger; the bushmen; also of Cecil Rhodes. Interesting and illustrated.

Grades 6, 7, 8.

REID, CAPT. MAYNE. The giraffe hunters. Hirst. 50c.

Tale of adventure in South Africa.

Grades 6, 7, 8.

LOOMIS, EBEN J. An eclipse party in Africa. 1896. Little. \$4.50.

An account of an expedition sent out by the United States government. Describes St. Helena Island and gives legends of Napoleon current among the inhabitants. Describes the mines of Kimberley. Very readable. Excellent pictures.

Grades 6, 7, 8.

KNOX, T. W. Hunters three. 1895. Dutton. \$2.00.

Hunting and adventure in South Africa. Interesting, well written, and well illustrated.

Grades 7, 8.

BADLAM, ANNA B. Views in Africa. [The world and its people series, Bk. VII.] Silver. 72c.

Description of the diamond fields; the Kaffir traits and customs; also Hottentot customs. The South African republics and the Boers.

Grades 6, 7, 8.

MARTIN, ANNIE. Home life on an ostrich farm. 1890. Appleton. \$1.25.

An interesting account of life in South Africa. Children like it.

Grades 7, 8.

THE CONTINENT OF ASIA.

Characteristic Regions:

1. Region of China.
2. Region of Japan.
3. Region of India.
4. Region of Arabia.
5. Region of the Holy Land.
6. Region of the Malay Peninsula.
7. Region of Australia and New Zealand.
8. Region of the East Indies.
9. Region of the Philippines.
10. Region of the South Sea Islands.

The Region of China.

ESSENTIALS.

The oldest country in the world, with a literature and civilization long antedating the time when European countries emerged from barbarism. It is a country densely populated by a race characterized by conservatism, stolidity, and non-progressiveness, due largely to their religion of ancestor worship, which leads them to regard new customs as vicious. It is a region famous for its production of rice, tea, and silk.

BEST BOOKS.

COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.

Several articles on scenes on the streets and in the homes of China.

Grades 6, 7, 8.

SMITH, MARY CATE. Life in Asia. 1900. [World and its people, Vol. VI.] Silver. 60c.

Several chapters on China and its people. Treats of other regions of Asia. Interesting, simple style. Should be in every library.

Grades 6, 7.

PRATT, MARA L. [People and places here and there, Vol. IV.] [c. 1892.] Ed. Pub. Co. Cloth, 60c.

Chinese history; Tae-Ping rebellion; farming; fishing; customs; schools; great wall. Interesting.

Grades 5, 6.

CARPENTER, FRANK G. Asia. [c. 1897.] Am. Bk. Co. 60c.

An imaginary trip through Japan, China, India, Thibet, and Turkey, describing the life of the people, the government, and the educational systems of the countries. Illustrated. Should be in every library.

Grades 6, 7.

LEE, YAN PHOU. When I was a boy in China. [c. 1887.] Lothrop. 60c.

Very good description of home life in China by a native.

Grades 7, 8.

MILLER, OLIVE J. Little people of Asia. 1899. Dutton. \$2.50.

Tells of queer ceremonies over baby—about his playthings, how his career is chosen, about his schoolmaster, his fondness for kite-flying, the queer scenes one sees in the streets. An interesting book easily read.

Grades 5, 6.

MORSE, EDWARD S. Glimpses of China and Chinese homes. 1902. Little, Brown. \$1.50.

Describes, in an interesting way, the Chinese home, dinner, theatre, prison, temples, and mansions.

Grades 6, 7, 8.

FORD, JOHN D. An American cruiser in the East. 1898. Barnes. \$2.50.

Descriptive of the manners and customs of China. Treats, also, of Koreans—Very good. Many pictures.

Grades 7, 8.

RUPERT, WM. R. A geographical reader. Leach, Shewell. 65c.

Some interesting facts about China and the Chinese.

Grades 7, 8.

KNOX, T. W. The boy travelers: Japan and China. 1900. Harper. \$2.00.

Interesting description of manners and customs of Chinese people. Many illustrations.

Grades 6, 7, 8.

FRENCH, H. W. Our boys in China. 1899. International Book and Pub. Co.

Descriptions of sights and scenes in China. Much good material in it, but diffuse.

Grades 7, 8.

GEORGE, MARIAN M. Little journeys to China and Japan. 1901. Flanagan. 50c.

Much interesting information regarding sights and customs of these countries. Illustrated.

Grades 5, 6.

COMPANION SERIES. The wide world. 1902. Ginn. 25c.

Graphic picture of ways of living in different parts of the world, presented in a brief and comprehensive way. Treats of China, Japan, Egypt, Italy, Russia, Mexico, and Alaska. Should be in every library.

Grades 5, 6.

SMITH, ARTHUR H. Chinese characteristics. [c. 1894.] Revell. \$2.00.

A very carefully written account of the traits of the Chinese. Gives a great many concrete details of their manners and customs, and their ideals—social and political. A valuable book for the teacher. Can be read by 8th grade.

GEDDIE, JOHN. Beyond the Himalayas. 1892. Nelson. \$1.00.

A series of travels and adventures in the wilds of Tibet. Interesting. Illustrated.

Grades 7, 8.

KER, DAVID. O'er Tartar deserts. Lippincott.

The story of English and Russians in central Asia. Interesting.

Grades 7, 8.

The Region of Japan.

ESSENTIALS.

The country of quaint gardens, of cherry blossoms, and of the jinrickisha. It is a land characterized by its production of silk, rice, and bamboo; by the artistic temperament and gentle manners of its people; by the rapid advance of its civilization, and by the eagerness with which its people take up with Western ideas.

BEST BOOKS.

- BACON, ALICE M. A Japanese interior. [c. 1893.] Houghton. 60c.
A clear account of the observation and experience of a teacher in a school in Japan. Much information concerning the houses and private life of the people.
- AYRTON, MRS. M. C. Child life in Japan, and Japanese child stories. 1901. Heath. 20c.
Stories and sketches of Japanese children at play, with illustrations by Japanese artists. A charming book for children.
Grades 4, 5, 6.
- FORD, JOHN D. An American cruiser in the East. 1898. Barnes. \$2.50.
Scenes in and about the principal cities. A description of the government and industries of Japan. Very good. Many fine illustrations.
Grades 7, 8.
- ALLEN, ALICE E. Children of the palm lands. [c. 1901.] Ed. Pub. Co. 50c.
Tea making and drinking, as well as other customs.
Grades 4, 5.
- GREEY, EDWARD. Young Americans in Japan. 1899. International Book and Pub. Co. \$1.75.
An account of the adventures of the Jewett family in Japan. Many illustrations and much valuable information.
Grades 5, 6, 7.
- GREEY, EDWARD. The wonderful city of Tokio. 1899. International Book and Pub. Co. \$1.75.
A sequel to "Young Americans in Japan." Well illustrated. Tells of lacquer makers, of fan-makers, of a dry goods store, and of how rice is gathered.
Grades 5, 6, 7.
- CARROLL, STELLA W. and CLARENCE F. Around the world. [Geographical reader, Bk. I.] 1901. Morse Co. 60c.
Simple sentences about the houses, customs, silkworms, and streets of Japan.
Grades 2, 3.
- BRAMHALL, M. S. Wee ones of Japan. 1894. Harper. \$1.00.
Describes family life, manners, dress, discipline, education, and sports of the Japanese children. Interesting.
Grades 6, 7.
- RUPERT, WM. R. A geographical reader. Leach, Shewell. 65c.
Describes the people and their amusements.
Grades 7, 8.
- KNOX, T. W. The boy travelers: Japan and China. 1900. Harper. \$2.00.
Interesting descriptions of manners and customs of Japanese people. Many illustrations.
Grades 6, 7, 8.
- BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.
Islands are described, their productions and people.
Grades 7, 8.
- COMPANION SERIES. By land and sea. 1901. Perry Mason. 50c.
Interesting description of habits and customs of the people.
Grades 6, 7, 8.

BACON, ALICE M. Japanese girls and women. [c. 1891.] Houghton. \$1.25.

An account of the home life of Japanese women by a woman who was intimately acquainted with the life of the people.

Best for teachers.

ANGUS, D. C. The Eastern wonderland; or pictures of Japanese life. [The world in pictures.] Cassell. 75c.

Descriptions of Japanese life and character told in story form and representing a Japanese boy born under the old régime as growing up to witness and take part in the transformation of Japan. Well illustrated.

Grades 6, 7, 8.

ARNOLD, SIR EDWIN. Japonica. 1892. Scribner. \$3.00.

Beautiful illustrations. Descriptive matter of value to the teacher, but beyond the pupil.

GRIFFIS, WM. E. Honda the Samurai. A story of modern Japan. [c. 1890.] Cong. S. S. & Pub. Soc. \$1.50.

A story in guise of fiction to show how new Japan flowered out of the roots of the old. Gives stories which illustrate ancient and mediæval Japan, then the scenes following Perry's arrival, and lastly the nation's recent growth. Some very interesting chapters on the homes, baby's life, and the prisons.

Grades 7, 8.

GARDINER, R. S. Japan as we saw it. [c. 1892.] Rand-Avery Supply Co., Boston. 75c.

A brief account of a four months' trip by the writer and his wife. Contains much authentic information regarding habits, social customs, and needs of the traveler. Good for teacher, but not of especial interest to children.

CARPENTER, F. G. Asia. [Geographical reader.] [c. 1897.] Am. Bk. Co. 60c.

Several chapters descriptive of Japan and the customs of its people.

Grades 6, 7.

WADE, MARY HAZELTON. Our little Japanese cousin. [Little cousin series.] [c. 1901.] Page. 50c.

A story, very happily written, of the customs and life of Japanese children and people. Children fond of it. One of the few geography books which can be read by grades 4, 5, 6.

OPTIC, OLIVER (Adams, Wm. T.). Pacific shores. [c. 1897.] Lee. \$1.25.

The story of Louis Belgrave and his companions in Japan. Gives many facts regarding interior of houses, the religion, festivals, temples, and tombs. Interesting to boys.

Grades 7, 8.

INOUE, JUKICHI. Sketches of Tokyo life. Open Court. 75c.

Text in English. Treats of many quaint aspects of Japanese life—the story-teller's hall, the actor and the stage, the wrestler and the ring, fortune-telling, fires and firemen, jinrikishas, dancing-girls. Contains many curious illustrations.

Grades 6, 7, 8.

The Region of India.

ESSENTIALS.

The home of Brahminism and the seat of the system of caste. A hot, unhealthful, densely populated region. A region of jungles, full of fierce animals; of fertile valleys, teeming with people; and of plateaus, covered with forests. A country which produces great quantities of wheat, rice, opium, tea, and cotton.

BEST BOOKS.

PRATT, MARA L. People and places here and there. Vol. II. 1892. Ed. Pub. Co. Cloth, 60c.

Description of Brahminism, fakirs, Mohammedanism. The Sepoy rebellion, elephant-hunting, and the city of Benares are described. Interesting.

Grades 5, 6.

OPTIC, OLIVER. Across India. [All over the world series.] 1895. Lee. \$1.25.

Much interesting material regarding animals, jugglers, Ganges, and many cities.

Grades 7, 8.

KNOX, T. W. Adventures of two youths in a journey to Ceylon and India. [c. 1881.] Harper. \$2.00.

A great deal of interesting material. One of the best series of books written for children on geography. Well illustrated.

Grades 6, 7, 8.

BALLOU, MATURIN M. The pearl of India. 1894. Houghton. \$1.50.

Descriptive of the island of Ceylon, its people, its products, hunting, etc. Useful to teachers, but not interesting to the children.

CUMMING, W. G. Wild men and wild beasts. 1898. Scribner. \$1.50.

Full of hunting stories and stories of adventure in India. Interesting to boys. Illustrated.

Grades 7, 8.

RUPERT, WM. R. A geography reader. Leach, Shewell. 65c.

Description of the government and the social features of Hindoo life. Hindoo worship and the holy city of Benares.

Grades 7, 8.

CARPENTER, F. G. Asia. [Geographical reader.] Am. Bk. Co. 60c.

Chapters on farming classes, wild animals, the holy city of Benares, and the Himalaya mountains. Very interesting and well illustrated.

Grades 6, 7.

CARUS, PAUL. Karma; a story of early Buddhism. Open Court. 75c.

Japanese edition. A collection of stories. Very interesting and quaintly illustrated.

Grades 7, 8.

HEADLEY, J. T. Mountain adventures in various parts of the world. 1899. Scribner. \$1.00.

A trip to the sacred source of the Ganges.

Grades 7, 8.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

Customs, scenes, and religion of the natives. Holy city of Benares. Very interesting and instructive.

Grades 7, 8.

SMITH, MARY CATE. Life in Asia. [The world and its people, Bk. VI.] Silver. 60c.

Much interesting information regarding life in India, customs of the people, animal life, caste system, etc. Illustrated.

Grades 6, 7, 8.

WADE, MARY HAZELTON. Our little brown cousin. 1901. Page. 50c.
One of the best stories of the kind.

Grades 4, 5, 6.

The Region of Arabia.

ESSENTIALS.

The cradle of Mohammedanism. A plateau region, barren, desolate, unproductive, for the most part, and uninhabited except by wandering Bedouin tribes.

BEST BOOKS.

TAYLOR, BAYARD. Travels in Arabia. 1887. Scribner. \$1.25.

A sketch of explorers, ancient cities, and various travels in Arabia. Good.

Grades 7, 8.

ZWEMER, REV. S. M. Arabia, the cradle of Islam. [c. 1900.] Revell. \$2.00.

Studies in the geography, people, and politics of the peninsula, with an account of Islam. One of the best books on Arabia I know.

Grades 7, 8, and for teachers.

CARPENTER, F. G. Asia. [Geographical reader.] Am. Bk. Co. 60c.
Chapter on life in the Arabian desert.

Grades 6, 7.

SMITH, MARY CATE. Life in Asia. [World and its people, Bk. VI.] 1900. Silver. 60c.

A chapter on the home of the Arab; its horses, camels, and life.

Grades 6, 7, 8.

The Region of the Holy Land.

ESSENTIALS.

The "promised land" of the Israelites. At one time a land "flowing with milk and honey," but now a region of ruins and the home of a decadent people.

BEST BOOKS.

HEADLEY, J. T. Mountain adventures in various parts of the world. 1899. Scribner. \$1.00.

Describes climbing Mounts Lebanon, Sinai, and Ararat.

Grades 7, 8.

COMPANION SERIES. Under sunny skies. 1902. Ginn. 25c.

Describes fruit-raising in Asia Minor.

Grades 5, 6.

SMITH, MARY CATE. Life in Asia. [World and its people, Bk. VI.] 1900. Silver. 60c.

A description of lands of the Bible.

Grades 6, 7, 8.

KNOX, T. W. Boy travelers in Egypt and Holy Land. 1882. Harper. \$2.00.

Interesting and instructive. Well illustrated.

Grades 6, 7.

CARPENTER, F. G. Asia. [Geographical reader.] Am. Bk. Co. 60c.
Chapter on Palestine and people. Illustrated.

Grades 6, 7.

The Malay Region.

ESSENTIALS.

The spice-producing region of the world. A tropical country in which the inhabitants are either Chinese or Malay, and who live along the rivers and irrigating canals, where they are largely engaged in the production of rice.

BEST BOOKS.

KELLOGG, EVA M. C. Australia and the islands of the sea. [The world and its people, Bk. VIII.] 1898. Silver. 68c.

Treats of the islands adjacent to the Malay peninsula.

Grades 6, 7, 8.

KNOX, T. W. Boy travelers in Siam and Java. Harper. \$2.00.

Very interesting account, for children, of habits and customs of the people.

Grades 6, 7, 8.

CARPENTER, F. G. Asia. [Geographical reader.] Am. Bk. Co. 60c.
Chapters on Siam, the white elephants, the Malays, and the Burmese. Illustrations. Interesting.

Grades 6, 7.

HENTY, G. A. Among Malay pirates. Burt. \$1.00.

Stirring story of life in the Indian Ocean.

Grades 6, 7, 8.

The Region of Australia and New Zealand.

ESSENTIALS.

A region peculiar in that its central region is practically a desert; the only habitable part is along the coast. These islands are the home of peculiar types of animal and vegetable life—types which are found nowhere else in the world. This region is famous for its production of gold and for its exportation of wool, frozen mutton, and coal. This present-day progressive country of English tradesmen was first settled by exiled convicts. Its native population, the bushmen, are among the tribes lowest in point of civilization in the world.

BEST BOOKS.

BALLOU, MATURIN M. Under the southern cross. 1888. Ticknor. \$1.50.
Much valuable information, but rather too difficult reading for the grades.

KNOX, THOMAS W. The land of the kangaroo. [c. 1896.] Wilde. Cloth, \$1.50.

The adventures of two youths in a journey across the island. Much valuable information presented in interesting form.

Grades 6, 7, 8.

BALLOU, MATURIN M. Footprints of travel. 1896. Ginn. 60c.

The production of gold; animal and vegetable life; sheep-raising; chief cities.

Grades 7, 8.

RUPERT, WM. R. A geography reader. Leach, Shewell. 65c.
Life and industries in the island.

Grades 7, 8.

KELLOGG, EVA M. C. Australia and the islands of the sea. [The world and its people, Bk. VIII.] 1898. Silver. 68c.

An excellent and comprehensive account of Australia and the adjacent islands. Illustrated.

Grades 7, 8.

HENTY, G. A. A final reckoning. (Fiction.) Scribner. \$1.50.

A tale of bush life in Australia.

Grades 7, 8.

PRATT, MARA L. Australasia. [People and places here and there, Vol. I.] Ed. Pub. Co. Cloth, 60c.

The chief cities; bush life; the aborigines; birds and animals; the gold rush.

Grades 4, 5, 6.

HENTY, G. A. Maori and settler. (Fiction.) Scribner. \$1.50.

A story of New Zealand war. Boy's book of adventure.

Grades 6, 7, 8.

WHITMARSH, LIEUT. H. P. The young pearl-divers. Page. \$1.00.

A stirring story of Australian adventure. A splendid book for boys.

Grades 7, 8.

The Region of the East Indies.

ESSENTIALS.

A region of many active volcanoes and subject to violent earthquakes. It is also subject to fierce hurricanes, which render navigation among the islands exceedingly dangerous at certain times of the year. It is a region having a typical tropical climate—hot, moist, and unhealthful for whites. These islands have long been famed for the production of spices, ornamental woods, and coffee. The inhabitants are mostly of the Malay race.

BEST BOOKS.

KELLOGG, EVA M. C. Australia and the islands of the sea. [The world and its people, Bk. VIII.] 1898. Silver. 68c.

Excellent account of these islands, their productions and their inhabitants.

Grades 6, 7, 8.

ALLEN, ALICE E. Children of the palm lands. [c. 1901.] Ed. Pub. Co. 50c.

The production of pepper, cloves, and nutmeg; also the customs of the people are described.

Grades 4, 5.

HIGGINSON, S. J. Java; the pearl of the East. [c. 1890.] Houghton. 75c.

A good account of the people, wealth, and resources of the island, together with a brief outline of its history. No illustrations.

Grades 7, 8.

JENKS, TUDOR. The boys' book of explorations. 1900. Doubleday. \$2.00.

A description of the strange animals and plants of Australia. Explorations of interior of country related. Interesting.

KNOX, T. W. Boy travelers in Siam and Java. Harper. \$2.00.

Excellent description. Interesting to children.

Grades 6, 7, 8.

The Region of the Philippines.

ESSENTIALS.

A hot, unhealthful region, having luxuriant vegetation and heavy rainfall. It has a fertile soil, which produces sugar cane, rice, coffee, spices, and tropical fruits. These islands, formerly among Spain's richest possessions, are now governed by the United States and are being rapidly developed, both educationally and industrially.

BEST BOOKS.

KELLOGG, EVA M. C. Australia and the islands of the sea. [The world and its people, Bk. VIII.] 1898. Silver. 68c.

A chapter describing the islands—their inhabitants, their habits and customs.

Grades 6, 7, 8.

CARROLL, STELLA W., and HART, E. M. Around the world. [Geographical series, Bk. III.] 1901. Morse. 60c.

Interesting description of scenes on the islands. In the rice fields, spinning hemp, and rolling cigars.

Grades 4, 5, 6.

The Region of the South Sea Islands.

ESSENTIALS.

A region of coral reefs, having a mild climate and producing and exporting coconuts and other tropical fruits, besides sugar and cotton. These islands are now in communication with the civilized world by means of several oceanic steamship lines. In consequence, the natives are gradually emerging from their former state of cannibalism.

BEST BOOKS.

KELLOGG, EVA M. C. Australia and the islands of the sea. [The world and its people, Bk. VIII.] 1898. Silver. 68c.

One of the best treatments for children of the South Sea Islands of which I know. Illustrated.

Grades 7, 8.

MELVILLE, HERMAN. Typee; or, Life in the south seas. Heath. 1902. 45c.

A narrative of personal experience. The most readable book of the kind I know. Illustrated.

Grades 6, 7, 8.

CUMMING, C. F. At home in Fiji. 1882. Armstrong. \$1.25.

A series of personal observations. Contains much interesting information concerning the natives of the islands.

Grade 8, and for teacher.

PRATT, MARA L. Australasia. [People and places here and there, Vol. I.] Ed. Pub. Co. Cloth, 60c.

Good description of the natives. Illustrated.

Grades 4, 5, 6.

CHAPTER V.

SPECIAL METHOD OF PHYSICAL GEOGRAPHY.

By EFFIE B. McFADDEN.

No course in geography for grammar grades seems quite complete without some attention to the relation of cause and effect. While it is well if a seventh-grade pupil knows that it rains nearly every day in the Amazon region, it is usually profitable for this same pupil to know why this is so. In the same way if he has found rubber growing in the lower part of the Amazon Valley, it is well he should think of the agencies at work far away up in the Andes Mountains, tearing them down and bringing them as silt to be deposited by the overflow of the river, and thus make a fertile soil.

In nearly all of our text-books in geography for the grammar grades a few chapters in the beginning are devoted to some general statements about erosions, winds, rainfall, ocean currents, temperature, etc., apart from any country except as one may be mentioned in way of illustration—this, too, before the child has in his mind any definite picture of the region in question.

With this in view, it has been the aim of the Physical Geography work to follow closely the descriptive work; to ask why there are heavy rains in a certain location after the fact that the heavy rains are the rule has been established in some adequate way.

To illustrate: The child has first learned the location of the Amazon Valley, the slopes that form the sides, the river that flows through its lowest part; then he has to establish a certain feeling for its jungles, its animals, and its rainfall.

It is now time to ask why this is all so. It has been the aim not to answer this in any general statement, but by means of the child's experiences and by simple experiments appeal to his understanding. It is not necessary that the child be able in every case to make the application of the experiment to the physical fact, but if he sees the experiment, better still if he performs it himself, even if the teacher makes the application, the child will have something concrete upon which to hang his reasons.

The child can not see the water in the ocean disappear; he can see the clouds gather and the rain fall, but he can not feel the cold current of air above that perhaps has caused the downpour. In the experiment he sees the water in the flask gradually grow less; he feels the cold cloth, in fact as it becomes warm he must cool it again; he sees the drops fall one by one. Now it is not far in imagination from the alcohol lamp to the sun, from the water in the flask to the ocean, from the cold cloth to a cold current of air or a mountain range, and then from the drops of water to rain. The experi-

ment need not be repeated every time the child is asked for the cause of rainfall; a simple sketch of the apparatus will nearly always recall the necessary information.

All the apparatus used is very simple and costs only a few cents. It seems much better to have it so, as complicated apparatus draws attention to itself rather than to the results of the experiment; and costly apparatus can not be afforded by the average grammar school.

Not all the topics to be treated of in Physical Geography can be taken, nor should they be, in connection with South America. They are not mentioned in the descriptions of the different areas, so there can be no "why" asked. Glaciers are best studied in Alaska or Switzerland; hot springs and geysers, in the United States; the reasons for the different lengths of day and night, in the Arctic regions, etc.

Certain topics, and as it happens the most difficult ones for the children, will be repeated for nearly every new region; for instance, the causes for rainfall and for ocean currents. But after one or two areas have been studied, the children will have no difficulty in giving reasons, and very little time will be required for this work.

In the eighth grade it has seemed well to sum up the work by repeating it in topical form. Winds are studied this time as a general subject, their causes given and application made to the whole world. Glaciers, volcanoes, etc., may be treated in the same way.

The following outline is a compilation of the reports of lessons given in the fifth, sixth, seventh, and eighth grades. The essential points in all the lessons were developed in almost as many ways as there were teachers. Those methods that seemed most effective for a given class appear in the following pages. The reports of Misses Ethel Banks, Doolan, Prout, Ruff, and Tessie Savage, furnish the greater part of the material for the lessons; the drawings were made by Mr. Walter J. Kenyon.

RAINFALL IN THE AMAZON REGION.

I began my lesson with the most interesting descriptive features of the Amazon Valley. The class were able to recall a broad, densely wooded valley, through which was flowing, swiftly at its source, sluggishly at its mouth, a great stream of water. I placed particular emphasis on the luxuriant vegetation; then asked, "What causes such a growth of forests here?" This brought forth a discussion, the main points seeming to center about the heavy rainfall, though heat and the fertility of the soil were also given as causes. As nearly all had mentioned the rainfall, this was used as the starting point. "Why does the Amazon Valley get so much rain?" This was a hard question. Some thought that it was on account of the heat, others that the forests had something to do with it. Some gave the mountains as the cause, and others ventured no reply. The question of rainfall was now uppermost in the children's minds, so I asked, "What makes it rain, anyway?" "The sky gets filled with clouds," "The wind blows," were some of the replies. "What must there be in the air before it rains?" Some said water, some vapor, and some moisture. I brought it out plainly that it was

water and that these other names are given for special reasons. "Is there any water in the air outside? Any in this room? Could we ever get it back again?" After the opinions of the class had been given on these points, I took a tin can with a tight-fitting cover, and put in it a piece of ice, having them admit in the beginning that the can did not leak and that neither ice nor water could get out over the top or under the cover.

While waiting for this experiment, we tried breathing upon a pane of glass and upon tin. Then I poured a few drops of benzine, a few of alcohol, and a few of water upon a pane of glass. The children watched it disappear. They admitted that it went into the air, and when it was there we could not see it. I now gave the term, "vapor."

Miss Peugh repeated the same experiment, applying heat from an alcohol lamp. The children saw how much more quickly the liquids disappeared when more heat was used.

As the water had collected in large drops on the tin can, we turned our attention to it. By this time nearly all the children were satisfied that the water had been in the air as vapor and the cold can had brought it back to water again.

The point about something cold being necessary to bring it back should be emphasized. The word "condense" may be given here, as the children will find it used in their geographies.

I asked for instances of water collecting under various conditions, and the children spoke of the windows at night when it was cold outside and warm inside, of dew upon the grass, of drops of water on the outside of a water pitcher containing ice water, and of seeing their breath on a very cold day.

At recess time I had set up a piece of apparatus to represent rain formation. This consisted of an alcohol lamp over which was a flask half filled with water. Leading from a flask through a rubber stopper was a bent tube, as in Fig. 29. A cloth wet in ice water was wrapped around the center of the tube.

By this time the water drops were falling from the end of the tube, so I called attention to it and asked them to tell what made the vapor from the water come back in drops.

The children had no difficulty in telling how the heat from the lamp changed the water into vapor, which was turned again into water by the cold cloth. When the question was asked, "Where out of doors have you seen the vapor coming back in drops?" a perfect chorus of "rain" was the result.

"Now this table where the apparatus is, represents the Amazon Valley. What makes it rain here?" Several raised their hands immediately to explain. All could see that the lamp was the sun, the water in the flask

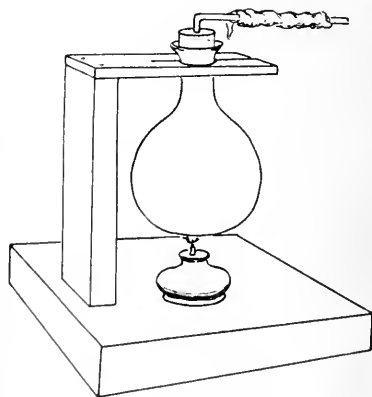


FIG. 29.

the Amazon River, or the ocean, but the cold cloth was a mystery. The question naturally arose in the children's minds, "What is there cold about so warm a place as the Amazon Valley?" I brought in the instance of men going up in a balloon and their experiences with the cold, also of climbing mountains, and then they saw what the cold cloth represented.

I then had several go to the board and draw the apparatus, naming, as they went, the particular feature for which each part stood.

"But I should think it would rain only over the Amazon River," said one boy. "Oh, no; the winds blow the clouds," some suggested. "But which way do the winds blow? And what makes them blow in South America?"

The discussion on winds that followed brought out from the majority of the class the opinion that winds "come from the ocean and go into the land." They agreed that this might be reversed, "the wind coming from the mountains and going into the ocean." They also thought that the wind is made of air and that it brings clouds. Some child volunteered that out in the ocean near this part of South America there was no wind, but a calm. The child had learned this from reading a story in his descriptive geography of a sailboat that got into this belt of calms and had a hard time getting to land. Here I told them that the belt of calms extended even over the land, and that we would find out why.

"What did we find out about the temperature of the Amazon region? What about the temperature of the air above such a place? Now let us see what the air over this heated place is doing. We will let this stove be the Amazon region. How shall we tell what is happening to the air?" "Hold a piece of paper over the stove, or a feather," were the suggestions. Each was tried, but nothing happened. So I produced a Chinese punk, lighted it, and held it over the stove. "What is the air doing? How can you tell? What is the air doing around the stove?" A child held the punk six inches from the stove, and the class saw the smoke move toward the stove, then upward. "If you were in a place where the air was moving up, could you feel it?" The class argued this awhile, then thought not. I told them that this was just what happened in the Amazon Valley. It is very warm there, so the air is heated and moves upward. The air around moves toward the heated part and then upward. Where it is moving upward the wind can not be felt, and we call it a calm. Where it is moving toward the heated portion we can feel a wind. "Now let us see what happens in the Amazon Valley to that air which is moving upward. Think again of the warm water that is in the flask." The children told how it was condensed by the cold cloth and fell down in drops. "When the warm, moist air gets up very high over the valley, will it remain warm? What will cool it? Then what would you expect in the Amazon region?" I told the children that the sun often rises in a cloudless sky; that as the sun grows warmer the damp air rises; it reaches a colder region, then clouds appear, and soon there is rain. When evening comes and it is cooler, evaporation takes place much more slowly, the clouds disappear and the stars shine out bright. The next morning is as clear as the first.

OTHER REGIONS OF SOUTH AMERICA.

Let us find out now what is happening to the air in the other parts of the room. We held the punk first at the lower part of the open window, then at the upper; then we did the same at the open door. In both cases the smoke blew into the room below and went out above. I developed the fact that the air out of doors and also in the hall was colder than that near the stove. The class now decided that the cold air which came in from the outside was warmed, then moved upward and out at the top of the window or door. "Why is it that the heated air rises?" brought no response. "Try an experiment," they said. So I took a five-gallon tin oil-can and tied a rubber balloon from a whistle over the end. (A paper bag would answer as well.) Then I put the can on the stove with the balloon up. The balloon soon swelled out, and the children agreed that the air was spreading out in the can and would do the same if the balloon were not there. They seemed to appreciate the fact that the cold air coming in pushed up this expanded lighter air. They were then ready to apply this to the circulation of the air in the Andes region. The colder place from which the air came was located near the poles. They saw that the air moves from two directions toward the Amazon Valley, pushes up the warm air and returns toward the poles, just as it had gone out at the upper part of the window and door. "What direction would you expect the winds to blow?" All thought from the north on one side of the Amazon Valley and from the south on the other side. When told that the winds came from the northeast and the southeast, they were quite puzzled and did not offer a reason for it. A circular board

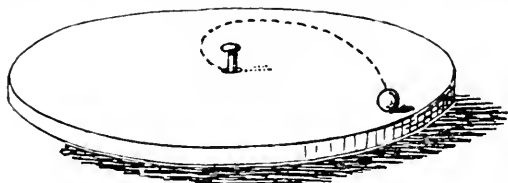


FIG. 30.

Disc illustrating the effects of rotation on the direction of the wind.

with a nail driven through the center, so that the disc would rotate when the nail was placed through a hole in a block, was now produced.

This was to represent the earth. The difficulty in imagining this flat board to be the earth was overcome by comparing the apparatus to half of a rubber ball flattened out. The curved edge represented the equatorial region of South America; the center, the north pole. An inked marble illustrated the wind. The disc being still, the inked marble was started to the edge. It went in a straight line. "But the earth does not stand still, it moves," said one. A discussion followed as to which way the disc should rotate. This being settled, one child rotated the disc while I started the wind. Several trials brought the same result; the marble rolled in a curved line, reaching the outside edge in the opposite direction from that in which the disc was moving.

"From what direction would you expect these winds to come if you were in the Orinoco Valley? Why?" I had to repeat the experiment with the

center representing the south pole, to show that the winds south of the belt of calms came from the southeast.

"Now we have winds blowing from the northeast and the southeast. What must they pass over before reaching South America? What did we find happened when wind blew across the water? Will there be much or little evaporated? How do you know?" Here I had to recall the experiments on evaporation, comparing the effect of using heat from a lamp and the heat of the sun. "Now we will think of these warm winds full of moisture blowing from the ocean toward South America." I took the northeast trade wind first. The children saw that it would strike the coast and soon reach the mountains along the northern border. I then developed the fact that the wind must ascend these mountains and in so doing would come into a colder region, where some moisture would be condensed and fall as rain. Now they traced it down the southern slope and across the Orinoco plains. Would it bring rain or drouth? "Drouth" they agreed, for it was very warm there, with nothing cool to condense the moisture. Finally it reached the Andes Mountains. "Now what will happen?" The rain problem had become easy by this time and every hand was up.

I took up the southeast trade in the same way. This was much easier for the children. I had one of the class take a pointer to represent the wind, pass to the map, and show us what would happen. He started with the pointer across the ocean, reached the Brazilian Highlands, where the class helped him out. They explained how the air ascended, became cooler, the moisture condensed and fell as rain on the eastern slope. Then the pointer passed down on the western side. "Wet weather or dry weather?" I asked. "Dry," came the answer. It took, even now, two or three trials to tell why. Then he passed it on to the Andes Mountains and told by himself of the heavy rainfall.

"Now what will happen on the western side of the Andes?" Some thought that the wind could not get over the mountains. Others that if it did, all the moisture would be gone. One bright boy said, "Well, it doesn't matter, for there wouldn't be anything colder than the top of the Andes Mountains to take the moisture out of the air." Though all were satisfied that they knew why it did not rain on the western side, I pointed out that on the west side the northeast or southeast trade would follow the line of the mountains and would not need to ascend, so no rain would fall.

"Why do they have that wet season part of the year on the Orinoco plains?" In my grade (fifth) I told them, without giving any reason, that in summer time the winds all moved north, so that the belt of calms is very nearly over the Orinoco Valley; while in winter they moved south, giving the valley of the La Plata its season of rain.

In the southern part of South America there is a rainy western slope and a desert on the eastern side. This puzzled my class at first. From what they had learned they saw that the wind must come from the west. "Why?"

I went back again to the warm stove and the punk. The children again thought of the stove as the heat of the Amazon Valley. They saw the

smoke rise, then followed it over to the upper part of the door, where the air moved the smoke out into the next room. "What happens to it there?" "It might drop down and then come back in again." Now I told them that the same thing happened in South America. By the time the air they found rising in the Amazon region had reached Patagonia, it had cooled and descended to the surface. "But why did it come from the west?" The rotation of the earth was given as a reason, but the children did not all agree, as rotation caused the trade winds to go in the opposite direction from the movement of the earth from the northeast and southeast. "Which way," I asked, "were the trade winds going?" "Toward the equator," they said. "Which way are these winds blowing?" "Toward the poles." "Would that make any difference?" Many said, "Yes," others asked for the circular board and the marble to try the experiment again. The bell rang for recess. So I gave them the apparatus, with instructions to roll the ball toward the center and to report next lesson. They were all satisfied next day that the rotation of the earth gave the winds their direction. I gave the name "anti-trade" or "westerly prevailing" to this wind, and the children explained how it ascended the Andes Mountains, cooled, and the vapor was condensed, giving rainfall to the western slopes; but being robbed of its moisture as it crossed mountains it descended as a dry wind upon the plains of Patagonia.

The next step was making a rain map. I drew on the board an outline map of South America, and had the children locate the different areas we had been studying. "Point out the places where there is excessive rainfall." I filled this in heavy with the broad side of the crayon. "Where is it heavy?" This I filled in with checks. "Where is there little or no rain?" I represented this simply by inclosing it with a line, leaving the space without lines. Then I explained that the other areas had moderate rainfall, and filled that in with standing lines / / / /. The class looked at the map and gave causes for the varying amounts of rainfall. Then I erased the map, and they passed to the board, drawing from memory. The next day I gave each child an outline map, which he filled in as I had done the day before, writing out the reasons for heavy, light, or no rainfall.

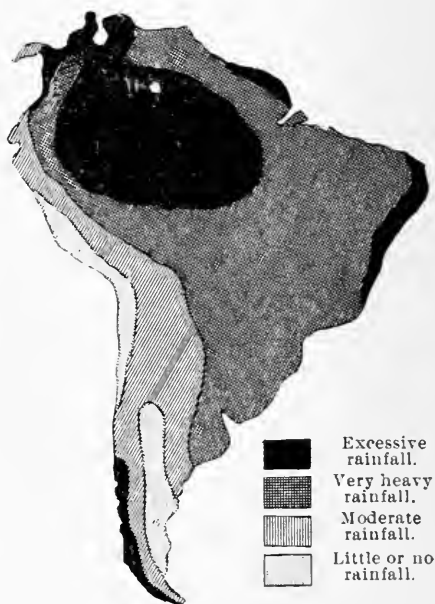


FIG. 31.

Showing the average rainfall in South America.

EROSION.

The class were having a lesson on rubber production in the Amazon Valley. They found from their reading that for a season during the year the men could not work, as the river overflowed, leaving the water deep on the rubber plantation. I thought it a good place to introduce the subject of erosion. "Does the land look the same when the water is gone?" I asked. Some said it was very wet, others thought that besides it would be covered with a layer of mud. (They had learned about the overflow of the Nile.) "Where did this mud come from?" "From the mountains." "Are the mountains made up of mud?" This led to a very lively discussion. Some thought there was plenty of soil in the mountains ready to be washed down by the rain. Another had been on Mount Tamalpais, and reasoning from his observations said there was only a little soil on the top of mountains and that in many places rocks came out. Then I had them think of places where hills had been cut through; all the hands went up, for there is a place near the school house where constant blasting and load after load of rock testify to a little soil on the surface and much rock below. Then they thought of other cuts in the city, where the rock had to be blasted out to make roads; of one place where a new gas pipe is being laid in solid rock; of a quarry where rock is obtained for the street, and many other cases where, only a short distance below the surface, rock and not soil is to be found.

I showed them some pictures from the Yosemite of a huge pile of rock, as high as ten "Call" buildings one on top of the other; of the Colorado River, with its perpendicular walls of rock; and then of the Andes. We had only a few pictures that showed well; some pictures of goat-hunting there and of pack trains going to the mines. They then added a little from their reading, to show the rocky condition of the mountains. I tried to bring out that under the soil there is a rocky foundation; that in the valleys the soil is deep in many places; but that high up in the mountains there is little soil and whole mountains of rock.

I came back to my first question, "Where does the soil that the river brings down come from?" "Something must break up the rocks," said one. "Not snow nor anything else could break up so much hard, hard rock," said another positively.

Here I brought in a new brick. "Isn't this hard?" I asked. "Yes, but not so hard as rock." "Will it ever crumble away?" "Yes, if you leave it long enough." Here they told of old brick buildings that were decaying; finally stone buildings were mentioned, and the children agreed that they had heard of their crumbling away. "Now what makes them decay?" No answer came. I took from an obscure part of my desk a piece of rusty iron. I allowed the children to bend it, and to scratch off pieces, and was delighted when a piece broke off as one was handling it. I appeared surprised and said, "You must have bent it very hard." "Oh, no, I did not. It broke very easily." Then they saw how easily this piece broke in comparison with a new piece of similar size which they had tried. They talked

of tin cans rusting, and of iron rusting; until one boy for whom this piece of rusty iron had no charms said, "But what has that to do with mountains being broken to pieces?" I told them now, that in the same way that tin or iron, exposed to the air, rusted to pieces, so rock would also crumble, but that it did so very slowly.

"But if rocks do break up, they don't make soil, just gravel," one boy said. This was the hardest part for the children to see. I brought in a great many kinds of rock to show them that some were very hard, some very soft, and others between these two. We took some granite and saw that this was made up of three different kinds of material. With a file they found part to be very hard, and part soft. I had them pound up some of each kind. After a very noisy ten minutes, we summed up what we had learned. Most of the soft rock (it was feldspar that I obtained from the Mining Bureau, Ferry Building, foot of Market street, San Francisco) when pounded up resembled the modeling clay they use, and was recognized as such by the children; the particles of the hardest rock, quartz, even when ground very fine with a mortar and pestle, had sharp angles, and the children immediately pronounced it "sand." The granite made part sand and part clay. They were just beginning to realize the significance of the whole thing when a boy said, "Oh, yes; they drop pieces of that rock across the street out of their wagons, then the other wagons run over it and makes the street terribly dusty." "And what happens when it rains?" I asked. "Mud," they said, all together. I asked them to bring in any kind of rock they could and pound it up to see what kind of soil it would make. I took a few minutes the next day to look at it with the children.

Our next problem was: "What besides weathering helps to tear the mountains down?" Rain, and snow, and ice, were suggested. To show them the force of ice in breaking apart the rocks, I took a bottle, filled it full of water and drove a cork in firmly, being careful that the bottle was full and that no bubbles of air were at the top. Then I sealed in the cork with ordinary sealing wax and packed it away in ice and salt. Before the hour was over, a big pop brought us to the can where our bottle was. We found the bottle broken and a piece of ice the exact shape as a result. The children were quite puzzled, for they had learned in some of their experiments that cold contracts water and that heat expands it. Here cold had expanded the water. I told them that down to a certain degree cold did contract water, but after that it expanded it. I spoke of the great crevices in the mountains, of the melting snow that filled these with water, and of freezing at night. Then the children saw how great pieces might be broken off.

Another agency that is at work is the alternate contracting and expanding. To illustrate this I drove a nail through a piece of tin, and asked a boy to hold the nail over the flame a few minutes, then put it through the hole in the tin. The nail would not now go through the hole it had made. Finally, another boy, who thought he could do almost anything, volunteered to try. I held the nail in the flame, meantime, so it would not cool. This boy failed, too; so the class decided that something had made the nail

grow larger. Then I put the nail in cold water, and it went through the hole easily. Now I confronted them with, "What do you suppose this has to do with the mountains?" Much to my surprise they told me that the different parts that made up the rocks expanded by day and cooled by night. "And what does this do?" They said that the particles would finally work loose and thus help to break up the rock.

"What do you think might happen after a little soil was formed on the mountain side?" This question didn't bring it, so I asked, "Are the Andes mountain sides all bare rock?" Then they saw what I was after, and told me how wind might carry seeds, and these sprout and grow. They spoke of seeing trees growing from a crack in a rock. One child told of an experiment of the year before in which they placed a board on top of some planted seeds and weighted it down little by little until the sprouting seeds could not move it. "What happened to the leaves on the trees after a time?" "They fall." "And then what?" "They decay and make new soil."



FIG. 32.

We summed up all that we had learned, finding that exposure to air, to heat and cold, freezing, and sprouting seeds all tended to break off great pieces of rock.

"Now let us see what becomes of all this rock that is broken from the mountains?" "It falls into the rivers and is carried down." "Down

where? To the ocean?" "No, some of it is in such large pieces that they just roll down a little way." "And what becomes of the other pieces?" A few questions, and a sketch of a river on the board brought out the real truth. "The current, strong where the bed of the river is much inclined, rolls the rocks over and over each other, dropping them when the bed becomes level and the current consequently weak. So the river drops smaller and smaller ones as it gets to leveler places." "How will these rocks look as you go along the river bank? Like these I have?" I showed them a jagged piece that I brought from the street. "Larger or smaller" was the only answer; but now I showed them a rounded rock, worn perfectly smooth. "What has happened to this?" I said, as I placed it beside the jagged one. Now the children talked of the rocks rolling and tumbling over each other. I recalled the heavy rains that come often and very suddenly in the Amazon Valley, so the children might have a clear picture of the rocks rolling over each other and being ground up, when the streams were suddenly filled with water.

"What kind of material is the Amazon carrying when it reaches the country near its mouth?" "Very fine," they said, "and soft." The reason was quite clear.

To illustrate the assorting power of water, I brought in a glass tube about two feet long, and one inch in diameter, with a cork for each end. Into this I put the granite they had ground up, being careful that there were some pieces as large as peas, and some as fine as clay. Then I filled the tube with water and put in a cork. This the children turned up one way and then the other. No matter how quickly or how slowly it was turned, the largest pieces reached the bottom first, and the fine clay gradually reached the top. The same thing can be illustrated by a bottle of ordinary soil (not gravel, however, as the bottle is not deep enough to let the stones get to the bottom first). Put in some water, and shake. When it settles, the fine clay will be found in a layer on top. I told them that the amount of detritus (a name given to the material brought down by the river) deposited each year was very small, but that it covered many acres of ground. "If this tearing down of the Andes Mountains and carrying of them down into the Amazon Valley keeps up steadily for millions of years, how would South America appear then?" The children saw that the steady march of rock waste from the hills to the sea would some time lay the Andes low and fill up the valley, tending to make the surface level.

The seventh grade were much interested in this and asked many questions about the filling up of our own valley—how long it had been going on, and how long it would take.

They seemed so much interested that I told them a little of the earth's history; how once perhaps most of the earth's surface was covered with water; how the rocks above were torn down and deposited in layers beneath the water; how these layers were often changed to rocks again, and then by some mighty force, which we would learn about in another lesson, were raised far above the water as a mountain range or plateau. Then the rains, the freezing, the expansion and contraction went to work and tore them down once more, only to be raised again to the surface. This was one of the most impressive lessons we had. Layers of rock or soil, called strata, meant much more to them after a trip to the beach and to the Castro-street cut, where these were pointed out.

In concluding this lesson, I asked if man could prevent in any way the tearing down of the mountains or help it along? They all thought it was beyond his power, until I asked, "How do they keep the sand out on the blue car line from being washed down on the track?" The children told immediately of the grass growing there whose roots held the soil in place. They thought that the forests helped to keep the material from washing down the mountains, and that if the forests were all cut down, the wearing away process would go on faster.

MOUNTAIN BUILDING.

This lesson followed immediately after the one on erosion. "Do you think that the Andes Mountains have always looked as they do to-day?" "They were higher. The streams have washed some of the rocks down into

the valley," said the children. "Do you suppose there ever was a time when the Andes Mountains were not there?" The children shook their heads and looked expectant, so I began: A long time ago this earth was not so cool as it is now. In fact, it was so very warm that had any one lived here, his feet would have been badly burned standing on it. "What makes people think so, seeing there was no one here to tell us about it?" No answer. "Have any of you ever been up in Sonoma County to the Springs?" "Yes." "What comes from them?" "Hot water." "Where does the water come from? How did it get warm?" "Perhaps it is still warm down in the earth," some one suggested. "There are the geysers in Colorado. They throw great streams of boiling hot water," said another. "There are other things that throw out hot material from the inside of the earth. What are they?" "I know, volcanoes." "There are volcanoes in the Andes Mountains, too." "Yes, but tell me what the volcanoes throw out and where they get it?" Here the children told of gas, steam, cinders, ashes, and lava. They had all heard of the Martinique disaster and were ready with information. "What does this show about the interior of the earth?" "That it is still warm." "There is one other thing that shows that the interior of the earth is warmer than the outside; it is mines." "Oh, yes; miners do not wear much clothing," "They have to pump cool air down to them," "Sometimes the men can work only a short time because it is so warm." These were some of the answers.

I told the class that for the first one hundred feet the temperature was just about the same, but after that it grew 80 degrees warmer for every mile you descend. "Now who will tell what makes people think the earth was once very warm? Where would it cool first? Let us see what will happen if the outside crust is cold and the inside begins to cool. Here is a nail that I will heat for you. It is hot like the inside of the earth. I will try to put it through this hole. Will it go?" "No." "Now it is cold. Will it go through?" "Yes. It got smaller." (They had had this experiment once before.) "Just so the inside of the earth gets smaller as it cools. What would there be between the cool outside and the smaller inside?"



FIG. 33. Diagram representing the contracting of the interior of the earth as it cools.

"Nothing." "What would hold up the heavy outside earth?" "It would fall in and pile up in places," said one. "Did you ever see an apple or a potato that had dried up in the sun? How did it look?" "All wrinkled." "And that is the way the earth looked after it had lost some heat from the inside." Here I drew a diagram on



FIG. 34. Diagram representing the wrinkling of the exterior as it fits itself to the shrinking interior.

the board. "What would you call one of those wrinkles in the earth?" "A mountain chain," said one. "What do you suppose happens here, when one of those folds was made?" "A terrible earthquake. I'd like to have been here," "Cracks, too, I think," "A big noise," were some of the answers. "I think so, too. But sometimes where one of these breaks

came, one part slipped down on the other. This, too, may have made a mountain range."

"Would a new mountain range appear rounded and smooth, or jagged and rough? What would wear it down smooth?" "We learned about the work of water in our last lesson. This is one way we have to tell whether mountains are old or young."

"There is another thing that helps sometimes to make mountains, especially mountain peaks. We spoke of it at the beginning of the lesson."

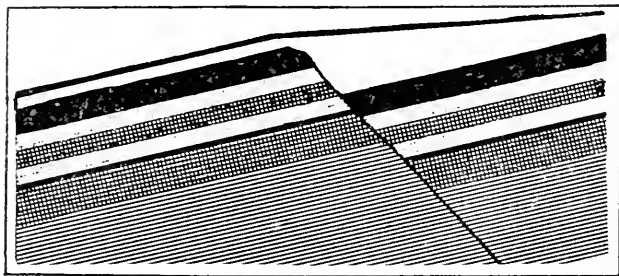


FIG. 35.

Diagram representing a break in the surface of the earth. One side has slipped down past the other. A valley and mountain range result.

"Yes, a volcano." "How does it build up a mountain?" We did not go into detail here about volcanoes, as there is no descriptive reading for the children on volcanoes in South America. As there is much written about Vesuvius and Mauna Loa, the details are much better studied in connection with Italy or the Sandwich Islands.

REFERENCES.

There are almost no books on the subject of Physical Geography that can be read with profit by the children. Illustrative experiments seldom illustrate if they are read about, rather than performed, and are at best dry reading for children. The best books are not written about any special region, but upon topics such as winds, glaciers, etc., and the application made to various regions. Some of these books may be read by an eighth grade.

Upon the special topics outlined in this paper are the following books:

First Book in Geology, N. S. Shaler (Heath & Co., 70c.). A very good brief description of the succession of physiographic events on the earth's surface, and how we know these events took place. Besides these there are articles on how mountains, valleys, and continents came to be; the work of water; winds; soils. Though this is told without special reference to South America, yet the application is easily made. It is a good book for every teacher to have.

There are three more books written by N. S. Shaler (D. Appleton & Co.) that treat each topic more in detail than any of the others on this list. The style is interesting, making the books very enjoyable reading.

Outlines of the Earth's History (\$1.75) gives a good chapter on the causes of winds, on causes of rainfall, erosion, how soil is made, volcanoes, etc.

Sea and Land (\$2.50) treats only of the work of the ocean in tearing down coast lines, building beaches, etc. The illustrations are excellent.

Aspects of the Earth (\$2.50) covers a much larger field, taking up the agencies that are changing the earth's surface. The illustrations are excellent.

A very excellent book is *A Complete Geography*, Tarr and McMurry (Macmillan Co., \$1.00)—two-book series. This is the best general reference book for a statement of the facts regarding climate, etc., with application to each continent. Rain maps are also given. *Introductory Geography* (60c.), the first book of the series, gives in an elementary way much that can be used in the physical geography class. These are also published in a three-book series.

Fairy Land of Science, by Arabella Buckley. (A. S. Burt. The Home Library edition. \$1.00.) This book is written to children, telling them, in a rather fanciful way, how rain is formed, of the air around them, of the work of water and ice in building up and tearing down the earth's surface. A number of simple and very interesting experiments are suggested. It can be read by children of the eighth grade and has been enjoyed by many of them. It is very suggestive to teachers.

Another book that the children can read is *Stories of Our Mother Earth*, by Harold W. Fairbanks. (Whitaker & Ray Co. 60c.) These are excellent descriptions of the processes which are and have been changing the surface of the earth. The book is written in language simple enough to be easily comprehended by the children. It also is very suggestive to teachers.

There are some Physical Geographies, too, that are well worth while. W. M. Davis has one published by Ginn & Co., entitled *Physical Geography* (\$1.25). He has also a newer one, *Elementary Physical Geography* (\$1.25), that covers much the same ground in a simpler way. Another is *Introduction to Physical Geography*, by G. K. Gilbert and A. P. Brigham. Redway and Hinman's *Natural Advanced Geography* (Am. Bk. Co., \$1.25) contains excellent rain maps.

SAN FRANCISCO STATE NORMAL SCHOOL

BULLETIN No. 4 (New Series)

A COURSE OF STUDY
AND
TEACHERS' MANUAL
IN
MAP GEOGRAPHY

By ALLISON WARE

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SACRAMENTO

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PREFACE.

This Bulletin is in no sense a guide for general work in descriptive and physical geography. It merely proposes to help teachers to get definite results in one phase of their geography work, the teaching of geographical locations. It is based on three general propositions: first, that a knowledge of the locations of a certain number of well-known features is of staple value to its possessor and is a proper objective for school work; second, that such a knowledge to be real or useful must consist of lasting mental pictures, visualizations of the features whose locations are to be known; and, third, that the creation of such mental visualization in lasting form can come only through well-aimed, carefully organized method, strongly backed by tested devices, and embodying the fundamental principle of systematic review.

The methods and devices contained in the following pages have all arisen from actual class-room needs, and have been tested in the Elementary Department of the State Normal School at San Francisco. Comments, suggestions, and questions concerning them or in reference to any other aspect of the manual are earnestly invited from the teachers into whose hands this may fall. Such co-operation will be a real aid in making this work a help to the teacher and a means toward practical results, to which ends it has been designed.

Helpful suggestions have been given by Mr. Frank Bunker, Assistant Superintendent of Schools, Los Angeles; W. M. Greenwell, Deputy Superintendent of Schools, Oakland; and Miss Adelyn M. Brickley, Assistant Supervisor of Geography, San Francisco State Normal School. The general ideas underlying the work were first set forth in Bulletin No. 10, Part 1, written by Walter J. Kenyon, and issued in 1905 by this school. The plan of the following works and many details of treatment have been adopted from that Bulletin. Therefore, without at all incurring responsibility for such defects as may be found herein, Mr. Kenyon should be given a large share of whatever credit this manual may deserve.

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A COURSE OF STUDY IN MAP GEOGRAPHY.

THE NEED FOR SYSTEMATIC WORK IN MAP GEOGRAPHY.

Two sorts of results should flow from a well-taught course in geography: First, the pupil should gain clear visual images of the location, relative position, and shape of a considerable number of geographical features; second, he should be given certain broad and intelligent appreciations of certain regions of the earth, aspects of nature, and affairs of men. Under the first subdivision would fall the map visualization, common to us all, of the Sahara Desert in its proper location in northern Africa. Under the second classification would fall that general idea of the Sahara which we all have when the name is left to the freedom of our mental fancy: a vast waste, parched, sandy, sometimes rugged, oftener a plain; visited by sand storms; here and there relieved by oases; the wide home of swarthy and warlike nomad tribes; overpassed with difficulty by caravans of camels; a region of mystery and strange adventure and thrilling story. To ask which of the conceptions of the Sahara,—the visual picture of it in its geographical locations, or the more broadly cultural conception of it with all its typical associations,—is the more important, is a vain inquiry. Both of them are fundamental to common intelligence on the subject. And the fact that the cultural conception is the one more pleasing to the fancy, more filled with thought-starting and picturesque details, and more stimulating to our emotions does not prove by any means that it is the more commonly employed by us in meeting the knowledge standards of ordinary intelligent intercourse. The staid and drab-toned visualization that we have of the Sahara as a somewhat definite area located just so in its relations to Africa and the world at large may prove our most useful conception of the region.

Since both are necessary to sound educational adjustment to the demands of intelligent living, there is little to be gained by asking whether the knowledge of commonly known locations or the cultural grasp of such areas and conditions as stand amid rich associations in the minds of educated people is the more important end of geography teaching. One must know definitely where the City of New York is located in order to pass the world's examination in elementary geography; and the same examination demands that we should know that city as a great seaport metropolis, with its miles of ship-lined docks, its hundreds of great vessels in the stream, its roaring streets, cliff-like buildings, and enormous urban and suburban traffic. That teaching is defective which fails to give the pupil a clear mental picture of its location, or a rich, real conception of the city in its commonly known aspects.

There are about two hundred and fifty geographical locations which every American must know in order to pass muster among people of good intelligence. And to these must be added for us about fifty California locations with which a Californian is expected to be familiar. At the present time our grammar school graduates are seriously deficient in this knowledge. They are left to scrape an awkward acquaintance with the location of Manila and Brazil and Japan under the embarrassing and painful instruction of the world. Some years ago a high school graduate presented himself for examination before the authorities of a California university for entrance credit in Greek history. He passed an excellent examination. Dates, names, analysis of periods, discussion of trends of events were vouchsafed by him without hesitation. Finally, at the end of the inquisition,—it was an oral test,—he was asked, “And where is Greece?” The spell of his fluency was broken; for, after considerable hesitation and casting about, he admitted that he didn’t know for sure, but thought that it was in Africa! There was a fatal weakness in this knowledge that was so full on the subject of classic tradition and Hellenic culture, and the names, dates, and details of military and political events. This weakness, the absence of clear visualization of locations and map relations, is found by observation and test to be a characteristic of most of our common school work in geography.

It does not behoove us, therefore, to worry about whether a visual knowledge of locations is more or less important than a knowledge of characteristics. One might as well join in the stirring old high school debate on the subject, “Which is the more useful to man, plants or animals?” or stop to discuss which is of more necessity to life, fresh air or fresh water. But it is of very vital interest for us to ask ourselves how it comes about that the knowledge of map locations is so deficient in our school graduates of the present day, and to lay plans for remedying that deficiency.

At the present time there are several obstacles in our school work to the attainment of good results in map geography. The main difficulty seems to be that we have been substituting word answers for visual impressions. For years children have been saying something to the effect that “the Amazon River rises in the Andes Mountains, flows east through the central part of South America, and empties into the Atlantic Ocean.” No proof has been required of whether or not the pupil mentally saw the river in its course, or saw the mountains, or even saw the continent. The naked phrase has been taken for actual knowledge. The real knowledge behind it, if haply there be any, lies in the mental picture of the outline of South America, the Andes Mountains in their proper place, and the black line of the river as it traces its way to the ocean. This mental picture of the Amazon on the map, with a background of ideas in the light of which map symbols are to be interpreted, is the vital part of any sound knowledge of the location of that river. And so it is with any other feature. It is easy for the reader to test this in his own case. Think for a moment of the location of the Isthmus of Suez. At once the memory recalls a visual map

picture of the northeastern part of Africa and the southeastern part of Asia, of the Red Sea and the Mediterranean; and it is easy to revive at will the general outline of the whole eastern hemisphere and to see the isthmus in its wider relations. A similar visualization is experienced if the location of the Dardanelles, London, Greenland, Cape Horn, or any other well-known feature is thought of. Such mental pictures are the foundation of any real knowledge that one may have of locations.

To illustrate, suppose one tries to get a knowledge of location from the following: The Pelter River rises in the highlands of Arding and flows south through the east-central region of Saldacia into the Gulf of Matalay. Or, Robinson Peak is in the Hercules range, and is located in the northeast corner of Eutopia. In each case there is nothing more than a hollow shell of meaningless words; the vital content, a mental visualization of the thing to be located and its map relations, is lacking. Map questions such as these are as futile in trying to give real knowledge of locations, as it would be to try to describe the difference between red and blue to one born blind.

Some one will doubtless say, "No one nowadays thinks of teaching a geography location in mere words. The pupil is always required to look the feature up on the map, and thus receives a visual impression. Then the expression of the location in words recalls the impression and is a means of testing its accuracy." In this commonly used method lies most of the responsibility for the lack of clear knowledge of locations now displayed by the graduates of our grammar schools. Suppose the first impression of the location of Chicago has been secured from the map: is there anything in that process that will stamp its relations to surrounding features in an indelible outline in the pupil's mind? Under the stress of oral and written questioning he falls into the word phrase of the text: "Chicago is situated on the southwestern end of Lake Michigan in Illinois." The first faint visual impression made by his glancing at the map of the Middle States (which, by the way, does not show the location of Chicago as it should by all means be shown, in relation with the principal features of the whole United States) is never renewed, and a verbal scrap soon becomes a substitute for it. That is, it would become a substitute for it if it had a chance to live in the pupil's mind. Nine times out of ten it is not reviewed and barely endures in memory over night or until the final examination is over.

This touches the bottom of the whole trouble. All our map locations, as in the case of the location of Chicago, have become merely incidental to the work of a busy lesson in descriptive geography. One or two pupils may have been active in finding the place of some feature on the map, and by some special good fortune its location may possibly be referred to once more somewhere. But there is no hope in the absence of emphasis and drill and test and review that such incidental, hit-or-miss map work will give either a memory visualization or even a lasting word knowledge of location. Map geography can not be taught incidentally and retained accidentally. It requires, in order that it may be strong, lasting, and visual, not one, but many glances at each feature in its map relations, and not one, but many systematic reviews of the mental picture already established. It requires,

in short, what every other product of education demands for its attainment, a conscious and deliberate effort to secure it through the use of an adequate method. Upon these premises, which are simply the elementary facts of the case, the course of study in map geography that follows has been based.

Some of the characteristics of this course should be discussed. In the first place it proposes that every pupil,—not merely the brighter and quicker ones,—should be required to form a clear mental map picture of all the large land and water masses of the earth. Later, the locations of such specific features of both political and physical geography as intelligent people are called upon to know are required to be similarly visualized. Each visualization is to be made permanent by adequate drills, thorough test, and regularly recurring reviews.

There are several reasons why this work should be taken up as a systematized and orderly branch of the general course in geography. In the first place, it is the only way of making certain, in the long run, that the map geography will be thoroughly taught. The theory at the present time is that map locations are to be taught and fixed when the features are taken up in the descriptive work, when the pupil's mind is active toward the places to be located. It sounds well as a theory; but after many years of its application in school practice no one will be found to say that the map work has been or is productive of satisfactory results. And it is the fault of the theory, not the teacher. To give the location of Vesuvius the drill necessary to establish it as a clear, permanent visualization in its map relations at the time the class is studying it as a volcano would demand an interrupted treatment of the physical and descriptive geography of Italy, and the expenditure of time and energy upon the location of Vesuvius wholly out of proportion to the result to be obtained,—that single visualization. The map geography of twenty features of Europe could be thoroughly taught, if they are all taught at one time, in one quarter the time that would be required to give a vivid, lasting visualization of the twenty if each were taken up separately and at intervals. It is this time saving by means of specially organized work in map geography that makes it possible to teach it thoroughly in the time available for it in the crowded school course.

Moreover, the work in map locations, once done and well remembered by the class, gives the teacher a great advantage in presenting the descriptive topics. Each area or place comes to the pupil as something definitely situated and with definite space relations to neighboring places. These space relations must be known and appreciated as a necessary foundation for understanding much of the physical geography, a very considerable part of political geography, and practically all of commercial geography. To stop and supply the necessary visualizations of map relations as each feature comes up in descriptive geography would entail a serious loss of time and an interruption in the sequence of the work in hand. It would be as improvident as for a carpenter who is shingling the roof to climb down from the ridge-pole to get each nail as he needed it.

By grouping the map geography work into a clear-cut course it is possible

to provide reviews that will be systematic enough to insure the permanence of the mental pictures of locations gained by the class, and this without waste of time. Repetition and recall are still the only ways under the sun by which original impressions of isolated facts may be deepened and their permanence assured; and without drill and review all hope of lasting good from the work done in map geography is vain.

Finally, it would seem to be evident that any end in geography worth attaining is worth a serious systematic effort aimed toward its attainment. Such an end is the building up of strong visual images of map locations. If we set out in earnest to do this piece of work it can be done. But if, on the other hand, we propose to continue to let map geography depend on the crumbs that fall from the teaching of physical and descriptive geography, then in simple fairness we had better admit without more ado that we do not claim to give to children any real or permanent knowledge of the location of those features whose space relations the world will demand of them to know.

A PLAN FOR THE WORK.

The regular work of the course in map geography as planned in the following pages requires two periods per week throughout two years. In city schools each period should be from thirty to forty minutes in length so as to provide for silent section seat work and class recitation work, each of fifteen or twenty minutes' duration. Opportunity for the division of large classes into two sections is thus given, one section to be busy with seat work while the other is engaged in class exercises. A plan for such division is proposed on page 15, and seat work for the silent section is suggested throughout the course and on pages 24-25. In ungraded schools, where periods for recitation are necessarily much shorter than in city schools, class recitation work in map geography may be well done during two fifteen-minute periods per week. *Not less than two fifteen-minute periods of seat work in map geography should supplement this recitation work. (See pages 24-25 for suggestions as to seat work.) Under all circumstances the descriptive geography work should make its own progress along its own lines as laid down in the course of study, and can be cared for in the remaining time allotted to the work in geography. At the completion of the regular course in map work (usually at the end of the fifth year) a system of cumulative reviews is arranged to continue throughout the remaining years of the grammar school course.

The two-year map geography course is planned to begin with the lowest grade in which geography is taught. This means that in most of our schools it should be commenced with the fourth grade. This early start is valuable because of the importance of having map locations well visualized before the features so treated are taken up in the descriptive geography. If the class acquires clear impressions of locations during the first years of their geography work, the teacher will in the long run more than save the time spent in developing them because of the increased grasp and intelligence that they give the pupils in the descriptive and physical geography to follow. Moreover, children as young as those of our fourth and fifth grades quickly acquire the visual images of map relations which are the object of the course, and the game element so prominent in the drill exercises of this work makes a strong appeal to them.

The first step in the work should be a clear interpretation to the class of the meaning of maps and map symbols. The pupils must be brought to see behind the printed buff and green, the black lines and dots, and to

*The ingenious teacher in a rural school will find no difficulty in arranging so that several classes may be combined in this map geography work. This will require that the order of the topics be recast to suit conditions. Care must be taken in such a combination of classes lest some pupils miss or unduly repeat certain parts of the work.

realize that mountains and valleys, rivers and cities are the realities involved in their work. A slight modification of Chapter XI of the State Series Introductory Geography will be found adequate for this purpose. It should be remembered that anything like a full realization of the meaning of map characters is not to be expected until the descriptive work is done. Even then experience and travel and mature associations are necessary to round out the conceptions. The purpose of the course in map geography is to give a series of strong, correct, and lasting mental map pictures of certain features in their principal relations, with a background of ideas whereby the map symbols may be interpreted. But a full knowledge of the realities symbolized in the map images must be largely a growth from further school work and life experiences.

Ease in passing from the mercator to the polyconic projection is to be specially dealt with in the first map work where the earth as a whole is taken up. Here the pupil passes from the globe to the peeled surface of the globe as shown on the maps of the two hemispheres, and then to the mercator map of the world. The outline maps of the various continents taken up in the course should all be based on the polyconic projection. This is the standard projection for ordinary reference maps, and we are, therefore, more familiar with the shape and position of areas as shown upon it. The text maps of the continents, referred to in the following pages, are of this type.

The outline map sketching prescribed when each new unit is taken up is of the first value and deserves more than a passing mention. Its principal result is that it gives the pupil a clear-cut mental picture of the outlines of the various continents by forcing him to depend upon his memory of what each outline is like rather than upon its representation on the text map, or on the map hanging against the wall. In order to sketch a fair outline of North America without recourse to any model the pupil must have acquired a mental model. Besides, this sketching practice adds to the visual image a motor image which is of substantial value in deepening and making permanent the impressions received through the eyes. In this work mechanical devices and outline frameworks are undesirable aids. It is not a perfect map that is to be sought, but rather a clear mental impression of the general configuration of the outline. Such an impression to be worth while must consist in a clear visualization of the area itself and not in the remembrance of certain drawing rules and construction lines. Such rules and lines render unnecessary the clear visualization of the outline and in part usurp its place. A point later mentioned, but of such importance as to merit emphasis here, is that the model outlines and the outlines sketched by the pupils should not be crowded with a perplexing host of minor sinuosities. The characteristic features alone are to be included. On the other hand, the lines should never be stiff and rigid, (save where properly following some parallel or meridian.) but should have the yielding irregularity of any coast line or river.

All the drill and testing should be done on maps void of the names of the features. Otherwise, in making locations the pupil will find it

impossible to keep his eye from searching for the name printed on the map, whereas he should be searching his mental picture of the map for the exact position desired. It will be hard to get a pupil to depend on his mental vision of St. Louis in its proper place on the map of the United States while locating that city on a lettered map. Of course, when first learning the location of a place the pupil may very properly have recourse to a map with names upon it. This is provided for in the following first location exercises in which the text-book maps are to be used. But after the first visual impression is gained, the work proceeds to deepen and fix that impression by requiring him to make correct location of the feature upon a map without names. In no case should exercises systematically involving the use of oral statements of location and unaccompanied by actual location drill on maps be permitted to occupy the class. Such oral statements are not of value in sharpening the visualizations, and if persisted in will result in a gradual indifference to and a final fading out of the picture image. The word image will take its place, as it so often does in our map work at the present time, and the whole purpose of the course will have been defeated. It should be remembered that any one with a clear visual memory of the location of any feature,—say of the Nile River,—will have no difficulty in describing that location in words. But ability to describe a location in words does not mean the ability to visualize it.

A natural question is, "How will children in the fourth and fifth grades stand the constant formal drill involved in systematic work in map geography? Will they not become tired of its monotony?" The answer is, There is no reason for it to be monotonous; and with an ordinary degree of skill and care on the teacher's part the pupils will maintain a keen interest in it. Every teacher knows that children like to do what they can do well. They have a zest for the piece of work that they can perform smoothly and with credit to themselves, and all the work in map geography is of this sort. If the course is faithfully taught, any child not positively defective will soon be in possession of a considerable number of accurate visual memories of many different features,—so many that he will be pleased and surprised at the extent and sureness of his knowledge. To go smoothly and in a few seconds over an unlettered map, pointing out and naming a score of known features, becomes a pleasant reaction to the sense of confidence and pride that the pupil has in his abilities. Besides, the drills are not of a single sort. Many forms of map exercises are suggested in the following course and others quite as good will doubtless suggest themselves to many teachers. Each of these exercises has some of the characteristics of a game, calling as it does for skill, readiness, certain knowledge, and alert wits. Each, moreover, has as its central incentive the spur of emulation, of competition in well-doing, the standard being perfection. The match may be introduced between sections as a stimulus to interest, as often as it is needed. Joint matches between classes and tryouts for school exhibitions may be introduced.

The old objections to emulation, namely, that such an incentive stimulates those who do not need it, depresses still further those who are already

behind, and arouses harmful emotions in all, has little force when applied to the method of these locative drills. The emulation is not so much between pupils as between each pupil and perfection. Besides, there is no occasion for poor pupils in this work. Any fourth or fifth grade child not abnormally below standard can easily be perfect. Test has shown that where the work has been well done a whole class will review the locations of the features involved in a unit without a single error. If the test made at the close of the work of each unit shows over one per cent of error, the faulty work should be done over by those who need it.*

When it is apparent to the teacher that some of the pupils can go faster than the remainder, she should divide the class into A and B groups. Each group can then make progress according to its ability.

In classes of over twenty-five pupils division into sections should be made, even if there is no material difference in the abilities of the children. This will make it possible for the teacher to sustain a close interest and constant activity on the part of every pupil in the work in hand. In classes so divided, each section will spend half of the time devoted to each period of map geography at some sort of seat exercise and half the time in class recitation work. Thus, during the first twenty minutes the A section will be engaged in class recitation while the B section has seat work, and during the last twenty minutes B section will be reciting while A section is silent at seat exercises.

The two days on which map geography is taught should fall together and should not separate the three remaining days on which the descriptive geography is taken up. Thus Monday and Tuesday, or Thursday and Friday should be given to this course.

After the completion of the regular two-year course in map geography, (normally at the end of the fifth year,) the work is not to be dropped. Once dropped it will be forgotten. All of us are aware of masses of fact which once seemed well within the possession of our memories, but which are now dead to all recall. If such should be the result of the work in map geography the course will have been a failure. It is not the purpose of the work to give merely temporary visualizations, but, rather, to equip the pupil with a permanent stock of mental map pictures. To this end orderly, systematic reviews must be kept up, not depending on chance or inspiration, but following a regular scheme. One forty-minute period every two weeks throughout the remaining years of the pupil's school work should be devoted to review exercises in map geography. In rural or ungraded schools this may be made one fifteen-minute period each week. This systematic review work will provide for a complete recall of each of the locative visualizations not less often than twice each school year. In no other way can their permanency in the minds of the pupils be assured.

*e. g., Suppose the test contains thirty-four locations and is given to twenty-one pupils. The total of possible errors is therefore 21×34 , or 714. If a total of over seven errors, (that is to say, over one per cent of 714,) is found throughout the whole class, then the work has not been done in a satisfactory manner, and part or all of the class should be required to go back and make up deficiencies.

COURSE IN MAP GEOGRAPHY.

THE MEANING OF MAPS AND MAP SYMBOLS.

The first work should be to explain the meaning of maps and map symbols. Show a large wall map of California or the United States to the class. Point out rivers, cities, mountains, lakes, and seas. Show how similar representations are used for all of a certain class of features. If the map used is a political map, explain why the different political divisions have various colorings. If a physical map, explain the uniform use of one color for highlands and another for lowlands. From this preliminary work the class will get some inkling of what maps are, and what they are about to learn will apply itself to the further interpretation of the map that they have examined.

Next, take up the text explanations. (State Series Introductory Geography, pp. 102-107.) and go through the chapter with the class. It will be well to omit the exercises involving the use of accurate and stated scales. The main object is to develop the general notion that on a small map the actual object is represented by a very small figure; and that the larger the area represented, the smaller relatively the representation becomes. This may be shown by discussion of the fact and by map-drawing exercises based on home surroundings where the reduction in scale is manifest, even if inaccurate. The use of scales involving an accurate ratio of reduction should be postponed until later. It is too complex an operation to be profitably performed in the fourth grade.

Maps of the desk top, school room, school yard, home neighborhood, and other familiar areas should be drawn by the pupil. The relative size and position of the map symbols used in these exercises should be discussed and carefully checked by comparison with the real objects. Discuss and compare Figs. 86 and 87 (State Int. Geog., pp. 102-103), and Figs. 88 and 89 (*Ibid.*, pp. 103-104).

Actual directions and map directions should be explained. Perhaps the pupils already know the four points of the compass of the locality where they live. If not, the cardinal directions should be taught. A small compass will be the readiest way of locating the north. But if no compass is at hand the memory of the location of the North Star will do. Expand and make clear and interesting the paragraph on page 105, dealing with the location of the North Star. Illustrate by showing the relative positions of the North Star and Great Dipper on the blackboard. Then have the class stand and face the north. Behind them is what direction? To their right hand? To their left hand? Have individuals point to the north; the

south; east, (where the sun rises); the west, (where the sun sets). Have members of the class point to the north end of the room; the south end; the east side; the west side. Have them do the same for the school yard and town. Then ask such questions pertaining to well-known local objects, as, "In which direction is Phillips' farm?" "The shoe factory?" "The Ferry Building?" etc. This done, let the class mark the four cardinal directions on the maps which they have made of desk top, school and neighborhood. Here bring out the idea that the north side of a map is always the farthest from the reader. Show that "up" and "down" on a wall map mean simply north and south, and that the actual surface represented in the map is not "up and down" (in the sense of being vertical), but is practically level; that maps represent such flat surfaces, but that they are sometimes hung up so that people can the better see them.

A careful discussion of Fig. 91, p. 107, should occupy a full period. Have the class turn to the figure in their texts. Then discuss with them the various features shown in the pictures and compare each with its representation on the map to the right. Next, let them turn to Fig. 123, (opposite p. 140,) and find the peninsula of Nova Scotia on the large map. Compare its appearance there with its appearance on the small map, Fig. 91. Likewise have them locate New York City and its neighborhood on the map marked Fig. 132, (opposite p. 149,) and compare its representation there with its appearance on the small map in Fig. 91.

Finally, return to the wall map with which the work began and have the pupils answer, "Ocean;" "Land;" "City;" "River;" "Lake;" "Mountains;" etc., as you point out one sort of feature after another.

THE EARTH AS A WHOLE. (First time over.)

The Globe.

Object: To give pupils a visualization of the shape of the earth: and of the shape and relative positions of the continental and ocean masses.

1. Divide the class, if it contains more than twenty-five pupils, into two sections. This will insure close attention and more constant activity on the part of all members of the reciting section. As half the time devoted by each pupil to map geography will be spent in silent seat work, this division will not reduce the amount of recitation work done by each, but will mean that one section is to have silent seat work while the other is engaged in class recitation. On the other hand, many positive advantages will be found to come from the reduced size of the sections. Give the silent section for its first seat work the task of drawing maps of the baseball grounds, or the fair grounds, or their home yards or farms. Or they may be left to write lists of places and things to the north, east, south, and west of their position.

2. Then take up the work with the section that is to be engaged in class recitation. A word should be said concerning the shape of the earth, but a full discussion of its sphericity should be left to the descriptive work.

Hold a globe in your hand and have the pupils supplied with small globes. A dozen such small globes (cost, \$4.50,) will supply a section of twenty-four pupils by seating two in a seat for this exercise. Be sure that the pupils hold their globes north pole end up. Then have individuals point out to the rest of the class bodies of land and water, rivers, mountains, etc.

3. LOCATIONS. Point to North America on your globe and run your finger along its outline. Call its name and write it on the blackboard. Have the children find it on their globes and run their fingers around its outline. Have the section call the name, softly in chorus, as you point to North America. Have them point to North America on their globes as you give the name. Treat South America, Africa, Europe, Asia, and Australia, and the oceans,—the Arctic, Pacific, Atlantic, Indian, and Antarctic,—in the same way.

4. DRILL. (a) Have individuals stand in turn and point out on their globes the various continents and oceans as you speak their names.

(b) Have individuals call the correct names as you point to the different continents and oceans. In case of error made by any pupil, the one who detects it is entitled to continue the recitation. Each pupil should be called upon in this work, and each should have the whole list of locations to make or names to answer while he is on his feet. It is a waste of time to call upon a pupil to arise and utter a single word or point to a single location and then sit down.

5. TEST. Same as Sec. 4.

6. GLOBE DIRECTIONS. In order to get a starting point for determining direction, mark the spot where we live on your globe with a piece of chalk, and have the pupils do the same on theirs. Then ask, "In what continent do we live?" "Draw your finger eastward on your globe." Do so on your own globe and see that the children follow the action on theirs. In like manner,—

"Draw your finger westward."

"Draw your finger northward and locate the North Pole."

"Draw your finger southward and locate the South Pole."

"What ocean is east of North America?" "What ocean west?"

"What ocean east of South America?" "What ocean west?"

"What ocean north of North America?"

"What ocean south of South America?"

"What ocean is north of Europe?" "What ocean is west of Europe?"

"What continent is south of Europe?"

"What ocean is west of Africa?" "South?" "East?"

"What continent is east of Europe?"

"What ocean is north of Asia?" "East?" "South?"

7. DRILL IN GLOBE DIRECTIONS. Repeat Sec. 6, reversing each question, thus: "What continents are west of the Atlantic Ocean?" "What conti-

nents are east of the Pacific Ocean?" And so on for the rest of the questions.

Drill on the exercises contained in Secs. 6 and 7 until the members of the class can answer all the questions without looking at their globes.

8. TEST. After sufficient drill, have the pupils during their next period for map geography seat work, (while the other section is reciting.) copy the following from the board, filling in the missing words:

1. — and — are west of the Atlantic Ocean.
2. — and — are east of the Atlantic Ocean.
3. — and — are east of the Pacific Ocean.
4. — and — are west of the Pacific Ocean.
5. The continents of —, — and — are south of the Arctic Ocean.
6. The continents of —, — and — are north of the Antarctic Ocean.
7. The — and — Oceans are south of the Arctic Ocean.
8. The —, — and — Oceans are north of the Antarctic Ocean.
9. — is west of the Indian Ocean.
10. — is north of the Indian Ocean.
11. Australia is between the — and the — Oceans.
12. — is east of the Indian Ocean.

In order that the names of the continents and oceans may be correctly spelled it is necessary for the teacher to have them plainly written on the blackboard or on a black paper chart, and the class should be earnestly cautioned to look up the spelling of each name before writing it. It will be well to have the names arranged alphabetically so as to aid the pupils in finding, without loss of time, the correct spelling of each word. Thus:

- | | |
|---------------------|--------------------|
| 1. Africa. | 7. Europe. |
| 2. Antarctic Ocean. | 8. Indian Ocean. |
| 3. Arctic Ocean. | 9. North America. |
| 4. Asia. | 10. Pacific Ocean. |
| 5. Atlantic Ocean. | 11. South America. |
| 6. Australia. | |

If care is taken to see that the pupils do actually consult the correct spelling thus displayed before them while they are writing, the habit will soon be fixed and it will be easy to prevent mistakes.

The Hemisphere Maps.

Object: To secure visualization by the pupils of the flat hemisphere maps, and of the continental masses and oceans in their general shape, relative positions, and direction from one another.

9. LOCATIONS. Have the section turn to the maps of the hemispheres. Fig. 119 in the State Introductory Geography. Ask the following questions, calling on individuals to answer:—

1. "What continents are in the Western Hemisphere?"
2. "What continents are in the Eastern Hemisphere?"

3. "What ocean is entirely in the Eastern Hemisphere?"
4. "What oceans are partly in both hemispheres?"
5. "Point out the North Pole on the Eastern Hemisphere."
6. "On the Western Hemisphere."
7. "Point out the South Pole on the Eastern Hemisphere."
8. "On the Western Hemisphere."

10. DRILLS. Hang against the board an outline map of the hemispheres drawn with chalk on black paper.*

(a) Then point out the continents and oceans in rapid succession and have the class answer softly in chorus the name of each as it is pointed out.

(b) Call a pupil to the map. Have him point to each feature as you briskly run over the names of the continents and oceans. In case of error, the pupil detecting it takes up the recitation. Here, as in all other exercises where pupils pass to the map, the most scrupulous care must be taken to keep them out of the line of vision of the rest of the class. A few days of system and insistence will give the members of the class sound habits as to their posture and position when standing at the map, and will pay a big dividend in all the work that follows.

(c) Call up two pupils and repeat (b).

(d) Call on a pupil to stand and name all the features in turn as you point them out. In case of error, the pupil noting it gets the recitation.

(e) Repeat (d), letting a pupil take your place to do the pointing out. Insist on rapidity and snap in the pupil-teacher's work.

(f) Have the alphabetical list of the features written beside the map. Then call on pupils to pass to the map, point to and pronounce the name of each feature, and locate each in turn. This exercise is especially useful in that it combines the pronunciation of the name and the location of the feature.

(g) Line up the section along the blackboard. Then point on the outline map to each continent, ocean and map direction, and let the pupils in rotation give the name as each feature is pointed out. When a pupil makes a correct answer, he turns and makes a score mark in his favor on the board at his back. If he misses, do not send him to his seat; simply pass the question on. At the end of the exercise, those with perfect scores win. If the previous reviews have been well done, all should win.

11. TEST. Same as exercise (b), in Sec. 10 above.

*The black paper referred to is tailor's pattern paper. If possible, the teacher should get the school to supply her with about ten yards of it. This amount will be sufficient for the nine outline maps which the course in map geography requires. But in the event of the failure of the school to supply the paper it will pay the teacher to get it herself, as it costs only $1\frac{1}{2}$ cents a yard and its use will save her much duplication of work. If handled carefully to prevent smudging these chalk outlines may be used for all necessary review work and for successive classes as well. When not in use they should be kept rolled on sticks, or, better still, should be tacked on regular map sticks. If the outline is put on in white or cream water color it will last indefinitely, and will prove a very useful part of the teacher's outfit all of the time.

The Mercator Map of the World.

Object: To give a visualization of the mercator projection of the world and an understanding of the relation of positions and sizes of masses upon it to their positions and sizes on the hemisphere maps and the globe.

12. CHARACTERISTICS OF THE MERCATOR PROJECTION. Have the pupils turn to the mercator map, Fig. 120, opposite page 137 in the Introductory State Text. Explain that this is a sailor map. It was first made by a man who called himself Mercator, and was to help sea-captains find their positions and trace their voyages. In it the northern lands are too large. Compare Greenland with South America as shown on the mercator and on the hemisphere maps. Compare the arctic lands as shown on the mercator map with the same areas shown in their true proportion on the globe. Bring out the fact, by reference to the globe, that the places shown at the eastern and western edges of the mercator map of the world are really side by side; that the map represents the earth's surface peeled off and then stretched out at the north and south until it is flat and square cornered.

13. LOCATIONS. Have the class find and point to each continent and ocean as it is called out.

14. DRILL IN DIRECTIONS. With the mercator map of the text-book before them, ask the class the questions found in Secs. 6 and 7. Then have them close their books and answer the same questions, depending on their mental pictures of the map.

15. TEST. Apply Sec. 8.

NORTH AMERICA. (First time over.)

16. OUTLINE MAP SKETCHING. The class is first stationed at the blackboard in easy sight of a model outline map of the continent of North America. This outline should be in chalk on black paper or on the blackboard. (See footnote, p. 18.) It should be drawn to the scale that it is desired of the class to use. The outline should be heavily drawn and should not attempt to include more than the general contour of the coast line. Minor irregularities will serve to confuse and to take the attention from the more important and more characteristic features.

The teacher should call the attention of the class to the various features that are brought out and to the heavy white stroke used. Then the following points should be offered the pupils as suggestive hints to aid them in their sketching:—

1. That Hudson Bay is due north of the Gulf of Mexico.
2. That the mouth of the St. Lawrence River is due east of Puget Sound.
3. That Alaska has four prominent peninsulas jutting out toward the northwest; and that a line passed through the extremities of these peninsulas is almost straight and takes a northeasterly and southwesterly direction.
4. That Chesapeake Bay is approximately east of San Francisco Bay.
5. That Lower California extends north and south of the latitude of Florida.

6. That the general trend of the northern coast is in a northwesterly and southeasterly direction.

These outline points will be very much clearer when explained in simple terms with the map in the presence of the children. The object is not to fill their minds with word wisdom concerning the outline, but to call attention to some of the most significant characteristics of the outline in such a way as to emphasize and deepen the visual impression received by the class.

After the pupils have had a good look at the model, have them face the board and draw in one minute as good an outline of the continent as they can. During this part of the exercise they should not be permitted to look at the outline, as such a practice will tend to place their dependence upon the model rather than upon their mental image of it. The safest thing to do is to cover or remove the model. During the minute in which the pupils are busy drawing, pass from one to another, giving such hints as may be needed. When the prescribed time is up, send the class to their seats and go briskly from map to map pointing out the best features of the work done and indicating the most serious errors.

This exercise should precede each map geography lesson until every member of the class can sketch a fairly good outline within the minute.

17. PRONUNCIATION. The following list of names, alphabetically arranged so that the same list may be used in drilling and testing as to locations in the later work, should be in view of the class:

- | | |
|---------------------|-------------------------|
| 1. Alaska. | 11. Hudson Bay. |
| 2. Appalachian Mts. | 12. Mexico. |
| 3. Arctic Ocean. | 13. Mississippi River. |
| 4. Atlantic Ocean. | 14. New York City. |
| 5. Boston. | 15. Pacific Ocean. |
| 6. Canada. | 16. Rocky Mts. |
| 7. Central America. | 17. St. Lawrence River. |
| 8. Chicago. | 18. United States. |
| 9. Great Lakes. | 19. Washington City. |
| 10. Gulf of Mexico. | |

Point out each name, pronouncing it, and have the class pronounce each in turn softly in chorus. Then call on individual pupils to pronounce each name as it is pointed out, until every member of the class is able to go through the whole list with ease. The names should be written in syllables so as to aid the class in pronouncing them.

18. LOCATIONS. Have an unlettered wall map of North America hanging before the class. Then direct the pupils to turn to their text map of North America opposite page 140 in the Introductory Geography. The teacher then reads the names in the above list, and as each name is read the pupils hunt for it on the text maps before them. The one whose hand is first raised should be permitted to pass to the wall map and locate the feature there. He should pronounce its name clearly and correctly as he

points to it. In case the class consume too much time in the effort to make the initial location upon their book maps, the teacher should offer suggestions that will help in the prompt location.

As the exercise progresses and more and more of the features in the list have been successfully located, each pupil stepping to the wall map should be required to locate not only the feature that he has just found in his book, but also all the other features previously pointed out. This will save much time, increase the scope and thoroughness of the drill, and serve as a stimulus to close attention.

19. DRILL. (a) Call up the pupils one by one and let each locate upon the wall map the various features as their names are called out. Whenever a pupil makes an error in this and similar drill exercises, the pupil first detecting it is entitled to continue the recitation. (Note: While the alphabetical arrangement of the names is very useful in certain exercises, the features should not be considered in that order in these oral location drills. It will be better for the teacher to bring out map relations of the various features by drilling on them in the order best adapted to emphasize those relations. Thus, Canada, the United States, Mexico, and Central America should be treated in order. So the large bodies of water should be grouped as related parts of the boundaries of the continent. The rivers, lakes, mountains, and cities should be brought out in the sequence adapted to show their relative positions.)

(b) With the list of names beside the map, call on pupils one by one to step to the map, point out the names, pronounce them correctly, and then locate the features for which they stand.

(c) Here the teacher points to each feature in turn, and as each is pointed out the class repeats its name in chorus. This may be varied by having the pupils write the names on slips of paper as the features are pointed out. In this event the alphabetical list of names should be in plain sight and the class should be cautioned from time to time to make sure of the spelling of all words by looking them up on the list. The features should not, of course, be pointed out in the order in which their names are listed. If the teacher desires, she may keep a record of the order in which she points out the features, and then after having the pupils exchange papers may have the work corrected after the manner of correcting spelling papers.

(d) This exercise is a variation of the preceding one; it is especially adapted to save time. Have the wall map and list of names as before, but have each name on the list preceded by a number. Then as each feature is pointed out on the map the pupils look up its name in the list, note the number before it, and write the number on their slips of paper. Correction may be made as in the last exercise, only instead of reading out the names the numbers are read out in the order in which the pupils should have written them upon their slips. In case this form of drill is frequently used the numbers before the names should be changed from time to time. Mexico, for instance, should not be numbered 12 constantly just because it appears in the twelfth place on the list; nor should it or any other name

have the same number, whatever it may be, for three consecutive drills. Otherwise the pupils will learn to think of the number instead of the name when the feature is pointed out.

(e) Line up the class along the blackboard. Then point out each feature on the map and let the pupils in rotation give the name of each feature as it is located. When a pupil makes a correct answer he is entitled to make a score mark in his favor on the board at his back. In case of error, do not send the pupil who makes it to his seat; pass the question on to the next in line and then after it has been correctly answered have the one who made the error repeat the correct answer. At the end of the exercise, those with perfect scores win. If the previous reviews have been well done, all should win.

(f) In this the teacher calls upon a pupil to stand and to name a number of features as she points to their locations in turn. This device especially adapted to save time, for it gets the maximum of work for the minimum of time spent in calling on pupils to arise. It is good, also, because it will result in a rapid-fire review of the whole list of features by each pupil in the section.

(g) The "match" idea may be applied in a multitude of ways. Leaders may choose their followers by alternating selections, a very interesting but somewhat time-wasteful way of dividing the class; or the A Section may be matched against the B Section, the right side of the room against the left, or the boys against the girls. Except for formal occasions, when something of especial interest is desired, the pupils should not be ranged against the board, as the time lost in this is considerable, nor should the choice of followers by leaders be permitted save on such special occasions. No one should be dropped from the match work because of failure, for those who fail are just the ones who need the work most. Score should be kept by the teachers or the side leaders on the blackboard. When holding matches, point to the features on the map and call on the pupils in rotation, alternating from one side to the other.

An excellent detail to the formal match work may be found in the following: When a pupil has failed to make the correct answer to a match question he is to go over to the opposite side until he does make a correct answer. Then he may return to his own side. This is a special incentive for interest and effort on the part of those who most need the drill.

(h) Send one child to the wall map to locate all the political features involved in the unit's work; another, to locate all the rivers; another, all the lakes; another, all bodies of water; another, all land features; etc.

20. Test. (a) Have each pupil make an outline tracing of North America, using onion weave or other thin paper placed over the text-book map of North America. (opposite page 140 in the Introductory Geography). This work should be done as a seat work exercise for the silent section in classes divided into sections.*

*This use of outline maps for seat work, both in drill and in test, is strongly urged. In ungraded rural schools one dollar's worth of onion weave paper will supply the school with tracing sheets for a year. This paper can be purchased in San Francisco (and,

The alphabetical list of names of the features whose location is to be tested is then placed before the class as a guide to the correct spelling. Next, the teacher points to and pronounces the names one by one, and as each is indicated the pupils write the name in the proper place on their traced outlines. This may be varied by having numbers written before the names as in exercise (*d*) of Sec. 19, and by requiring the pupils to place the numbers corresponding to the names in the proper locations on their outlines. In case numbers are thus used for locating countries, mountains, rivers, and large masses of land or water, each number should be written three times at short intervals on the map, so as to give the general trend or extent of the feature for which it stands. It is advisable that the numbers should be substituted for the names when more than twenty features are to be located on a single outline. Otherwise the written names will become crowded and confused. A high standard of neatness and accuracy should be set in this outline map test.

Mimeographed or printed outline maps may be used by the class in this test, instead of maps traced for the purpose. If such maps are available in sufficient quantities, or if sufficient time is found during the silent section seat work to have the class make a number of traced maps, this method of the location test may be effectively used as an exercise in location drills.

(*b*) Another form of test may be used by applying drill exercise (*d*), Sec. 19.

After the test results have been checked up, those pupils who show an imperfect knowledge and weak visualization of the features should be placed in a section by themselves, the class being divided along the line separating the good from the poor pupils, and should be given location drills (Sec. 19) until the proper results are obtained. The rest of the class, of course, pass on to the next unit.

21. REVIEW. Drill and test the class in the location of the continents, oceans, and poles by reviewing the work of Secs. 10-11.

The purpose of this and subsequent review work is to refresh and make more permanent the visualizations already established in the minds of the pupils. It is an essential part of the work. Without it the original impressions, however correct and vivid they may have been at the time the original work was done, will fade out and finally disappear; and thus the whole value of the course will be lost.

In the case of all review work the drilling should be continued and varied by the different devices outlined in Sec. 19 until the teacher is sure that every pupil has clear visualizations of the location of the features involved. Then a test should be made. For the review tests the plan outlined in Sec. 19, subdivision (*d*), is especially recommended. It saves time and does not require the preparation of outline maps. After the class and

probably, elsewhere) at \$1.50 per 2,000 sheets, size 8½ x 11 inches. At this cost, thirteen sheets for a cent, there is no reason why the largest city system should be without it.

In case circumstances compel the teacher to do without such paper, the exercises suggested in Sec. 19 (*a*), 19 (*b*), 19 (*d*), and 19 (*f*) may be used as substitutes for it.

teacher have become familiar with this method of conducting review tests, it will be possible for the class to locate as many as forty features in ten minutes.

EXERCISES FOR SEAT WORK.

The following exercises are useful forms of seat work for the employment of the silent section :

1. *Tracing Outline Maps.* Supply each pupil in the section engaged in seat work with a sheet of onion weave or other thin paper and set the section to tracing the outline of the continent whose features they are considering. These outline maps will prove of value as a means of deepening the pupil's mental picture of the profile of the continent and will be useful as a basis for the location tests. (See Sec. 20.)

2. *Locating New Features.* This exercise is to be used when the section is about to take up or has just commenced the location of a group of new features. Place the list of the features on the board and then direct the members of the section to hunt up each on their text-book maps. After each is located, its name is to be written on a slip of paper.

3. *Locating New Features.* This work, also, is to be done when a new group of features is being taken up. Have the pupils hunt up the location of each feature as directed in (b), and then write the name in its proper place on an outline map.

4. *Location Drills.* In this the pupils should write the names found in the list on the blackboard in their proper places on outline maps. Reference to books should not be allowed.

5. *Location Drill.* The teacher draws an outline of the continent under consideration on the blackboard and places numbers upon the various features in the location of which the section is to be drilled. The pupils then arrange the numbers found on the outline in regular order down the side of slips of paper and write after each number the name of the feature to which it refers. A list of the names of the features should be in sight so that the spelling may be correctly written by the class.

6. *Answers to Map Questions.* Certain kinds of map questions may be used to sharpen the visual images formed in the minds of the children. Care must be taken, however, to see that such questions as are used really call up and depend upon the visualizations held by the class. Otherwise the word location will tend to displace the mental picture of the location, and more harm than good will result. The following questions are suggested as types of the sort to be used :

(1) Name the countries of South America bordering on the Pacific Ocean.

(2) Name the countries of South America bordering on the Atlantic Ocean.

(3) Name all the states in the Union, beginning with Maine and passing from one to another in the order of contiguity. Thus, Maine; New Hampshire; Vermont; Massachusetts; Rhode Island; Connecticut; New York;

New Jersey; etc. (The boundaries of each state must touch the one preceding and following it in the list.)

(4) Apply (3) to the countries of Europe.

(5) Is the Mississippi River nearer the Atlantic or the Pacific coast line?

(6) Name in order, beginning with South America and going eastward, the oceans and continents crossed by the equator.

(7) Apply (6) to the zones and zone boundary circles.

(8) Name the land and water features over which you would pass in making a journey around the world.

(9) Name the land and water features over which you would pass in going from here to London; Switzerland; Cairo; St. Petersburg; etc.

(10) In what direction is the Baltic Sea from the Adriatic Sea? England from Holland? Africa from Europe? etc. (Be sure to limit these questions to such directions as are due north, south, east, or west.)

Each of the above stimulates a mental picture of the map locations involved in its answer, and is, therefore, a useful form of seat work. But in no case should any question be so framed and used as to require repeatedly the same verbal answer. If this should be allowed, the pupil would fall into an habitual word answer that would soon drive out the visual image, and thus do more harm than good.

SOUTH AMERICA. (First time over.)

22. OUTLINE MAP SKETCHING. Apply the method set forth in Sec. 16. The following suggestive hints should be considered:

1. That the general shape of the continent is triangular.

2. That the mouth of the Amazon River is almost due east of the Gulf of Guayaquil.

3. That the Isthmus of Panama is south of the northwestern extremity of the continent.

4. That the easternmost and westernmost points of the continent are in about the same latitude.

5. That the mouth of the Plata River is midway between Cape Frio and the Strait of Magellan.

It is not expected that the class will memorize these or similar hints in other outline map work. Their function is merely to make strong the mental image of certain characteristic and critical portions of the outline.

23. PRONUNCIATION. Apply the method set forth in Sec. 17. The following features are included in the work of this unit:

1. Amazon River.

2. Andes Mts.

3. Antarctic Ocean.

4. Argentina.

5. Atlantic Ocean.

6. Brazil.

7. Buenos Aires.

8. Caribbean Sea.

9. Chile.

10. Pacific Ocean.

11. Rio de Janeiro.

12. Valparaiso.

24. LOCATIONS. The above features should be located by applying the method used in Sec. 18.

25. DRILL. Apply the exercises suggested in Sec. 19 to the above features.

26. TEST. Apply Sec. 20.

27. REVIEW. Drill and test the class in the location of the following features:

North America:—

- | | |
|----------------------|------------------------|
| 19. Alaska. | 9. Hudson Bay. |
| 18. Appalachian Mts. | 8. Mexico. |
| 17. Arctic Ocean. | 7. Mississippi River. |
| 16. Atlantic Ocean. | 6. New York City. |
| 15. Boston. | 5. Pacific Ocean. |
| 14. Canada. | 4. Rocky Mts. |
| 13. Central America. | 3. St. Lawrence River. |
| 12. Chicago. | 2. United States. |
| 11. Great Lakes. | 1. Washington City. |
| 10. Gulf of Mexico. | |

The list of features considered in the treatment of North America, first time over, is here printed with a different arrangement of marginal numbers than it has in Sec. 17. This is to emphasize the fact that in using the numbers in location drills or tests the features should be variously numbered from time to time. Otherwise the number will soon take the place of the name in the pupil's mind. See Sec. 19, subdivision (*d*), for a discussion of this point. See, also, Sec. 21, for suggestions as to method and purpose of review work.

AFRICA. (First time over.)

28. OUTLINE MAP SKETCHING. Apply the method set forth in Sec. 16. The following suggestive hints should be used:

1. That Africa is nearly as wide as it is long.
2. That there is a marked break in the contour of the northern coast line at Tunis, about the center of the northern boundary.
3. That the bend in the coast line at the head of the Gulf of Guinea is almost due south of the break in the northern boundary along the coast of Tunis.
4. That the eastern and western extremities of the continent are in about the same latitude.
5. That there are three indentions similar in form but decreasing in size in the coast line from the Gulf of Aden to Cape Colony.
6. That it is about as far from the Strait of Gibraltar to the Isthmus of Suez, as from the isthmus to the easternmost point of the continent.

29. PRONUNCIATION. Apply the exercise set forth in Sec. 17. The following features comprise the work of this unit:

- | | |
|----------------------------------|--------------------------|
| 1. Alexandria. | 9. Egypt. |
| 2. Antarctic Ocean. | 10. Indian Ocean. |
| 3. Atlantic Ocean. | 11. Isthmus of Suez. |
| 4. Barbary States, (as a whole). | 12. Kongo River. |
| 5. Cairo. | 13. Mediterranean Sea. |
| 6. Cape Colony. | 14. Nile River. |
| 7. Cape of Good Hope. | 15. Red Sea. |
| 8. Cape Town. | 16. Strait of Gibraltar. |

30. LOCATIONS. The above features should be located by applying the methods used in Sec. 18.

31. DRILL. Apply exercises suggested in Sec. 19 for drill in locating the above features.

32. TEST. Apply Sec. 20.

33. REVIEW. Drill and test the class in the location of the following features:

(a) The Earth as a Whole, first time over:

- | | |
|----------------------|-------------------|
| 11. Africa. | 5. Europe. |
| 10. Antarctic Ocean. | 4. Indian Ocean. |
| 9. Arctic Ocean. | 3. North America. |
| 8. Asia. | 2. Pacific Ocean. |
| 7. Atlantic Ocean. | 1. South America. |
| 6. Australia. | |

(b) South America, first time over:

- | | |
|----------------------|--------------------|
| 12. Amazon River. | 6. Buenos Aires. |
| 11. Andes Mts. | 5. Caribbean Sea. |
| 10. Antarctic Ocean. | 4. Chile. |
| 9. Argentina. | 3. Pacific Ocean. |
| 8. Atlantic Ocean. | 2. Rio de Janeiro. |
| 7. Brazil. | 1. Valparaiso. |

See Sec. 21 for suggestions concerning review work.

AUSTRALIA AND PACIFIC ISLANDS. (First time over.)

34. OUTLINE MAP SKETCHING. Australia is the only feature to be included in this exercise. Apply the method set forth in Sec. 16. The following suggestive hints should be used:

1. The western coast line is about one half as long as the eastern coast line.
2. The Great Australian Bight is the main feature of the southern coast line, and is almost centrally located in it.

3. Melbourne Bay is due south of Cape York.

4. The easternmost and westernmost points are in about the same latitude.

5. The northernmost and southernmost points are in about the same longitude.

35. PRONUNCIATION. Apply the exercises set forth in Sec. 17. The following features are included in this unit:

- | | |
|-----------------------------|-------------------------|
| 1. Australia. | 7. Manila. |
| 2. East Indies. | 8. New Zealand. |
| 3. Hawaiian Islands. | 9. Pacific Ocean. |
| 4. Honolulu. | 10. Philippine Islands. |
| 5. Indian Ocean. | 11. Sydney. |
| 6. International Date Line. | |

36. LOCATIONS. Locate the above features by applying methods set forth in Sec. 18. Honolulu is not named on the map opposite page 249 in the Introductory Geography. The teacher should therefore show the pupils approximately where it is, and thus save them a profitless search. In the same way point out the fact that the International Date Line is the 180th meridian. It should be explained briefly that this is the line where each new date first begins.

37. DRILL. Apply exercises suggested in Sec. 19.

38. TEST. Apply Sec. 20.

39. REVIEW.

In this, and all the following reviews, the names of the features involved are arranged alphabetically, but are not set forth in list form. The teacher should understand that they are to be listed by her when used in class, as shown in Secs. 27 and 33.

Drill and test the class in the location of the following features:

(a) *North America* (first time over): Alaska, Appalachian Mts., Arctic Ocean, Atlantic Ocean, Boston, Canada, Central America, Chicago, Great Lakes, Gulf of Mexico, Hudson Bay, Mexico, Mississippi River, New York City, Pacific Ocean, Rocky Mts., St. Lawrence River, United States, Washington City.

(b) *Africa* (first time over): Alexandria, Antaretic Ocean, Atlantic Ocean, Barbary States (as a whole), Cairo, Cape Colony, Cape of Good Hope, Cape Town, Egypt, Indian Ocean, Isthmus of Suez, Kongo River, Mediterranean Sea, Nile River, Strait of Gibraltar.

In using number symbols for testing and drilling the class in the location of the above, the teacher should employ a varying assortment of numbers as suggested in Sec. 19, subdivision (d). See Sec. 21 for directions concerning reviews.

ASIA. (First time over.)

40. **OUTLINE MAP SKETCHING.** The outline of Asia will be harder for the class to sketch than that of any continent thus far treated. Nevertheless it is important that this work should not be neglected. During the first two or three days allow two minutes instead of one for the blackboard work. Re-read Sec. 16 carefully and apply its methods. The following hints may be used:

1. That East Cape is nearer the top of the map than any other point.
2. That India is due south of the Gulf of Ob.
3. That a line passing through the southernmost points of Arabia, India, and the Malay Peninsula is nearly straight, and runs a little north of west by a little south of east.
4. That the Malay Peninsula is the southernmost point of the continent.
5. That there are six prominent projections on the eastern coast.
6. That a line almost straight can be drawn northeast by southwest through five of these points, namely,—Kamchatka, Korea, China, Indo-China, and the Malay Peninsula.

41. **PRONUNCIATION.** Apply the exercises set forth in Sec. 17. The following features are to be taken up in this unit:

- | | |
|---------------------|-----------------------|
| 1. Arabia. | 14. Japan. |
| 2. Arctic Ocean. | 15. Jerusalem. |
| 3. Black Sea. | 16. Jordan River. |
| 4. Calcutta. | 17. Mecca. |
| 5. Caspian Sea. | 18. Pacific Ocean. |
| 6. Chinese Empire. | 19. Peking. |
| 7. Desert of Gobi. | 20. Persia. |
| 8. Euphrates River. | 21. Red Sea. |
| 9. Ganges River. | 22. Siberia. |
| 10. Himalaya Mts. | 23. Steppes. |
| 11. India. | 24. Tibet. |
| 12. Indian Ocean. | 25. Tokio. |
| 13. Indus River. | 26. Turkey (Asiatic). |

42. **LOCATIONS.** Apply exercises set forth in Sec. 18 in locating the above features.

43. **DRILL.** Apply the drill exercises suggested in Sec. 19.

44. **TEST.** Apply Sec. 20.

45. **REVIEW.**

(a) *The Earth as a Whole* (first time over): Africa, Antarctic Ocean, Arctic Ocean, Asia, Atlantic Ocean, Australia, Europe, Indian Ocean, North America, Pacific Ocean, South America.

(b) *South America* (first time over): Amazon River, Andes Mts., Antarctic Ocean, Argentina, Atlantic Ocean, Brazil, Buenos Aires, Caribbean Sea, Chile, Pacific Ocean, Rio de Janeiro, Valparaiso.

(c) *Australia and Pacific Islands* (first time over): Australia, East Indies, Hawaiian Islands, Honolulu, Indian Ocean, International Date Line, Manila, New Zealand, Pacific Ocean, Philippines, Sydney.

See Sec. 21 for suggestions concerning reviews.

EUROPE. (First time over.)

46. **OUTLINE MAP SKETCHING.** Europe is the hardest continent of all to sketch, for its coast line is the most irregular, and many of the relatively minor irregularities are significant and must be included. As in the case of Asia, it will be well to give the class two minutes for board drawing during the first two days. Carefully apply the methods set forth in Sec. 16. The following hints will be found useful:

1. That the coast line of Norway is very irregular.
2. That Denmark projects into the cleft in the southern end of Norway and Sweden.
3. That the west coast of France is characterized by the peninsula that projects into the Atlantic just south of England.
4. That the west coast of Spain and Portugal is roughly rectangular.
5. That Italy and Greece slant toward the southeast.
6. That Italy has the shape of a boot.
7. That Greece roughly resembles a hand cut almost in half.
8. That the Adriatic Sea is in approximately the same latitude as the Black Sea.
9. That the Black Sea has the shape of a slipper, and is due south of the White Sea.

47. **PRONUNCIATION.** Apply the exercises set forth in Sec. 17. The following features are to be taken up in this unit:

- | | |
|---------------------|------------------------|
| 1. Alps Mts. | 20. Holland. |
| 2. Arctic Ocean. | 21. Iceland. |
| 3. Atlantic Ocean. | 22. Ireland. |
| 4. Austria-Hungary. | 23. Italy. |
| 5. Belgium. | 24. London. |
| 6. Berlin. | 25. Mediterranean Sea. |
| 7. Black Sea. | 26. Norway. |
| 8. Bosphorus. | 27. Paris. |
| 9. Bulgaria. | 28. Portugal. |
| 10. Caspian Sea. | 29. Rome. |
| 11. Constantinople. | 30. Roumania. |
| 12. Danube River. | 31. Russia. |
| 13. Dardanelles. | 32. Scotland. |
| 14. Denmark. | 33. Sicily. |
| 15. England. | 34. Spain. |
| 16. France. | 35. St. Petersburg. |
| 17. Germany. | 36. Sweden. |
| 18. Great Britain. | 37. Switzerland. |
| 19. Greece. | 38. Turkey (European). |

48. LOCATIONS. In dealing with so many new locations it will be necessary to take up half of them first and drill on them for a time before introducing the class to the remainder. In this way mental congestion will be avoided and clear visualizations secured. No part of the work is more important than the clear visualization of these European features in their proper map relations. Everyday experiences are constantly demanding that we have vivid mental images of them.

Carefully apply exercises set forth in Sec. 18 in locating the above features.

Point out the location of Holland so as to show the class its map position. On the text map, Fig. 183, page 206, Holland is called Netherlands.

49. DRILL. Apply the drill exercises suggested in Sec. 19. In drilling on the content of this unit the exercises involving the use of numbers in marking locations on maps and in writing lists of answers to features pointed out by the teacher on the wall map will be of especial value because of the saving of time thus gained and because the numbers take up much less space than the names.

50. TEST. Apply Sec. 20.

51. REVIEW. Drill and test the class in the location of the following:

(a) *North America* (first time over): Alaska, Appalachian Mts., Arctic Ocean, Atlantic Ocean, Boston, Canada, Central America, Chicago, Great Lakes, Gulf of Mexico, Hudson Bay, Mexico, Mississippi River, New York City, Pacific Ocean, Rocky Mts., St. Lawrence River, United States, Washington City.

(b) *Africa* (first time over): Alexandria, Antarctic Ocean, Atlantic Ocean, Barbary States (as a whole), Cairo, Cape Colony, Cape of Good Hope, Cape Town, Egypt, Indian Ocean, Isthmus of Suez, Kongo River, Mediterranean Sea, Nile River, Red Sea, Strait of Gibraltar.

(c) *Asia* (first time over): Arabia, Arctic Ocean, Black Sea, Calcutta, Caspian Sea, Chinese Empire, Desert of Gobi, Euphrates River, Ganges River, Himalaya Mts., India, Indian Ocean, Indus River, Japan, Jerusalem, Jordan River, Mecca, Pacific Ocean, Peking, Persia, Red Sea, Siberia, Steppes, Tibet, Tokio, Turkey (Asiatic).

See Sec. 21 for suggestions concerning review work.

UNITED STATES. (First time over.)

52. OUTLINE MAP SKETCHING. Re-read and carefully apply Sec. 16. The following hints will help to emphasize certain characteristics in the visualization of the outline:

1. That Lake Ontario is due north of Florida, and Lake Superior is north of the delta of the Mississippi River.

2. That Chesapeake Bay is due east of San Francisco Bay.

3. That the southernmost point of Florida and the southern tip of Texas are in a line almost parallel with the bottom of the map.

4. That the southern point of Lake Michigan is in the same latitude as the southern border of Lake Erie.

5. That Cape Hatteras lies midway between the southern point of Florida and the northeastern point of Maine.

6. That Cape Hatteras and Point Conception are in nearly the same latitude.

53. PRONUNCIATION. Apply the exercises set forth in Sec. 17. The following features are to be taken up in this unit:

Physical Features,—Water:—

- | | |
|-----------------------|-------------------------|
| 1. Atlantic Ocean. | 14. Lake Ontario. |
| 2. Chesapeake Bay. | 15. Lake Superior. |
| 3. Colorado River. | 16. Massachusetts Bay. |
| 4. Columbia River. | 17. Mississippi River. |
| 5. Connecticut River. | 18. Missouri River. |
| 6. Great Lakes. | 19. Niagara Falls. |
| 7. Great Salt Lake. | 20. Ohio River. |
| 8. Gulf of Mexico. | 21. Pacific Ocean. |
| 9. Hudson River. | 22. Potomac River. |
| 10. Lake Champlain. | 23. Puget Sound. |
| 11. Lake Erie. | 24. Rio Grande. |
| 12. Lake Huron. | 25. San Francisco Bay. |
| 13. Lake Michigan. | 26. St. Lawrence River. |

Physical Features,—Land:—

- | | |
|---------------------|------------------------|
| 1. Adirondack Mts. | 7. Long Island. |
| 2. Appalachian Mts. | 8. Mississippi Valley. |
| 3. Cape Cod. | 9. Rocky Mts. |
| 4. Cape Hatteras. | 10. Sierra Nevada Mts. |
| 5. Cascade Mts. | 11. Yellowstone Park. |
| 6. Coast Range. | |

54. LOCATIONS. In fixing the locations of the above features the first list should be taught and drilled thoroughly before the second is taken up. This will avoid the difficulty of attempting to develop too many new visualizations at the same time.

Carefully apply the method suggested in Sec. 18.

55. DRILL. Apply the exercises suggested in Sec. 19. See suggestion in Sec. 49.

56. TEST. Apply Sec. 20.

57. REVIEW. Drill and test the class in the location of the following features:

(a) *South America* (first time over): Amazon River, Andes Mts., Antarctic Ocean, Argentina, Atlantic Ocean, Brazil, Buenos Aires, Caribbean Sea, Chile, Pacific Ocean, Rio de Janeiro, Valparaiso.

(b) *Australia and Pacific Islands* (first time over): Australia, East Indies, Hawaiian Islands, Honolulu, Indian Ocean, International Date Line, Manila, New Zealand, Pacific Ocean, Philippines, Sydney.

(c) *Europe* (first time over): Alps Mts., Arctic Ocean, Atlantic Ocean, Austria-Hungary, Belgium, Berlin, Black Sea, Bosphorus, Bulgaria, Caspian Sea, Constantinople, Danube River, Dardanelles, Denmark, England, France, Germany, Great Britain, Greece, Holland, Iceland, Ireland, Italy, London, Mediterranean Sea, Norway, Paris, Portugal, Rome, Roumania, Russia, Scotland, Sicily, Spain, St. Petersburg, Sweden, Switzerland, Turkey (European).

See Sec. 21 for suggestions concerning reviews.

CALIFORNIA. (First time over.)

58. OUTLINE MAP SKETCHING. Apply with care the suggestions contained in Sec. 16. The following points will help in giving correct visualizations of the outline:

1. That the northern boundary of California is a parallel of latitude.
2. That the northeastern boundary runs along a meridian.
3. That the northern boundary is practically the same in length as the northeast boundary.
4. That Cape Mendocino is the most westerly point.
5. That San Francisco Bay is somewhat south of the latitude of Lake Tahoe.
6. That California is narrowest between San Francisco Bay and Lake Tahoe, save at the extreme southern end.
7. That the greatest width of California is found between Point Conception and the Colorado River.
8. That the southern boundary slants upward somewhat north of due east.

It should be remembered that when these map hints are being used in class no terms not understood by the class, such as latitude or meridian or Lake Tahoe, are to be used. The teacher will have no difficulty in making the points in the above clear by loose and simple expressions when interpreted by constant reference to her model outline.

59. PRONUNCIATION. Apply exercises set forth in Sec. 17. The following features are to be taken up in this unit:

- | | |
|-----------------------|----------------------------|
| 1. Arizona. | 10. Nevada. |
| 2. Cape Mendocino. | 11. Oregon. |
| 3. Coast Range. | 12. Pacific Ocean. |
| 4. Colorado River. | 13. Sacramento River. |
| 5. Farallone Islands. | 14. Salton Sea. |
| 6. Golden Gate. | 15. San Francisco Bay. |
| 7. Mexico. | 16. San Joaquin River. |
| 8. Mohave Desert. | 17. Santa Barbara Channel. |
| 9. Monterey Bay. | 18. Santa Catalina Island. |

- | | |
|------------------------|----------------------|
| 19. Mt. Shasta. | 22. Tehachapi Pass. |
| 20. Sierra Nevada Mts. | 23. Tulare Lake. |
| 21. Tahoe Lake. | 24. Yosemite Valley. |

60. LOCATIONS. Apply the exercises suggested in Sec. 18.

61. DRILL. Apply the exercises described in Sec. 19. See suggestion in Sec. 49.

62. TEST. Apply Sec. 20.

63. REVIEW. Drill and test the class in the location of the following features:

(a) *North America* (first time over): Alaska, Appalachian Mts., Arctic Ocean, Atlantic Ocean, Boston, Canada, Central America, Chicago, Great Lakes, Gulf of Mexico, Hudson Bay, Mexico, Mississippi River, New York City, Pacific Ocean, Rocky Mts., St. Lawrence, United States, Washington City.

(b) *Africa* (first time over): Alexandria, Antarctic Ocean, Atlantic Ocean, Barbary States, Cairo, Cape Colony, Cape of Good Hope, Cape Town, Egypt, Indian Ocean, Isthmus of Suez, Kongo River, Mediterranean Sea, Nile River, Red Sea, Strait of Gibraltar.

(c) *Asia* (first time over): Arabia, Arctic Ocean, Black Sea, Calcutta, Caspian Sea, Chinese Empire, Desert of Gobi, Euphrates River, Ganges River, Himalaya Mts., India, Indian Ocean, Indus River, Japan, Jerusalem, Jordan River, Mecca, Pacific Ocean, Peking, Persia, Red Sea, Siberia, Steppes, Tibet, Tokio, Turkey (Asiatic).

(d) *United States* (first time over):

Physical Features. Land: Adirondack Mts., Appalachian Mts., Cape Cod, Cape Hatteras, Cascade Mts., Coast Range, Long Island, Mississippi Valley, Rocky Mts., Sierra Nevada Mts., Yellowstone Park.

Physical Features. Water: Atlantic Ocean, Chesapeake Bay, Colorado River, Columbia River, Connecticut River, Great Lakes, Great Salt Lake, Gulf of Mexico, Hudson River, Lake Champlain, Lake Erie, Lake Huron, Lake Michigan, Lake Ontario, Lake Superior, Massachusetts Bay, Mississippi River, Missouri River, Niagara Falls, Ohio River, Pacific Ocean, Potomac River, Puget Sound, Rio Grande, San Francisco Bay, St. Lawrence River.

See Sec. 21 for suggestions concerning reviews.

THE EARTH AS A WHOLE. (Second time over.)

64. CLASS WORK WITH GLOBES. Pass out the small globes used in the work of Secs. 2-6. Point out, describe briefly, and have each member of the class rise and locate on his globe the following: Arctic Circle, Tropic of Cancer, Equator, Tropic of Capricorn, Antarctic Circle, North Frigid Zone, North Temperate Zone, Torrid Zone, South Temperate Zone, South Frigid Zone. Explain in a few words that the Frigid Zones are cold and

bleak; that they are lands of ice and snow. The Temperate Zones are mild and pleasant regions. The Torrid Zone is very hot.

65. LOCATIONS ON THE HEMISPHERE MAPS. Use the same outline map of the hemispheres as was used in the work of Sec. 10. Draw on it the Arctic and Antarctic Circles, the Tropics of Cancer and Capricorn, and the Equator. Then apply the methods suggested in Sec. 10. Review in connection with the new locations the location of the features taken up in treating the Earth as a Whole, first time over. (See Sec. 3.)

66. LOCATIONS ON THE MERCATOR MAP OF THE WORLD. Have the pupils turn to the mercator map, Fig. 120, opposite page 137 in the Introductory Geography. Have different members find and point to the location of the various zones and circles on this map. Also review the location of the different continents and oceans.

67. TEST. (a) Have each pupil stand, point to, and name the zones and zone boundary circles as they appear upon his globe.

(b) Send each pupil in turn to the outline map of the hemispheres and have him point out each zone and circle.

68. WRITTEN WORK. At its first occasion for seat work in map geography have the section that has just completed the above exercises copy the following from the blackboard, filling in the missing words:—

1. The Equator runs through the middle of the — Zone.
2. The Tropic of — is the northern boundary of the Torrid Zone.
3. The Tropic of — is the southern boundary of the Torrid Zone.
4. The — Circle is the northern boundary of the North Temperate Zone.
5. The North Temperate Zone is north of the — Zone.
6. The North Temperate Zone is south of the — — Zone.
7. The Arctic Circle is south of the — — Zone.
8. The Tropic of — is north of the South Temperate Zone.
9. The — — Zone is south of the Torrid Zone.
10. The — — Zone is south of the South Temperate Zone.

69. REVIEW. Drill and test the pupils in the location of the following features:

(a) *The Earth as a Whole* (first time over): Africa, Antarctic Ocean, Arctic Ocean, Asia, Atlantic Ocean, Australia, Europe, Indian Ocean, North America, Pacific Ocean, South America.

(b) *Asia* (first time over): Arabia, Arctic Ocean, Black Sea, Calcutta, Caspian Sea, Chinese Empire, Desert of Gobi, Euphrates River, Ganges River, Himalaya River, India, Indian Ocean, Indus River, Japan, Jerusalem, Jordan River, Mecca, Pacific Ocean, Peking, Persia, Red Sea, Siberia, Steppes, Tibet, Tokio, Turkey (Asiatic).

(c) *United States* (first time over):

Physical Features, Water: Atlantic Ocean, Chesapeake Bay, Colorado River, Columbia River, Connecticut River, Great Lakes, Great Salt Lake, Gulf of Mexico, Hudson River, Lake Champlain, Lake Erie, Lake Huron, Lake Michigan, Lake Ontario, Lake Superior, Massachusetts Bay, Mississippi River, Missouri River, Niagara Falls, Ohio River, Pacific Ocean, Potomac River, Puget Sound, Rio Grande, San Francisco Bay, St. Lawrence River.

Physical Features, Land: Adirondack Mts., Appalachian Mts., Cape Cod, Cape Hatteras, Cascade Mts., Coast Range, Long Island, Mississippi Valley, Rocky Mts., Sierra Nevada Mts., Yellowstone Park.

See Sec. 21 for suggestions concerning review.

NORTH AMERICA. (Second time over.)

70. OUTLINE MAP SKETCHING. Drill the class in sketching the outline of North America in the manner suggested in Sec. 16. By this time the pupils should have a clear visualization of the main features of this continent and a few days' work should be sufficient to secure good outlines. In any event continue the drill until satisfactory results are attained.

71. PRONUNCIATION. Apply the method set forth in Sec 17. The following features are to be considered in this unit:

- | | |
|--------------------------|-----------------------|
| 1. Bering Sea. | 12. Mexico. |
| 2. Bering Strait. | 13. Montreal. |
| 3. Caribbean Sea. | 14. Newfoundland. |
| 4. Cuba. | 15. New Orleans. |
| 5. Greenland. | 16. Porto Rico. |
| 6. Gulf of California. | 17. Rio Grande. |
| 7. Gulf of St. Lawrence. | 18. San Francisco. |
| 8. Havana. | 19. Vancouver Island. |
| 9. Hawaiian Islands. | 20. West Indies. |
| 10. Isthmus of Panama. | 21. Yukon River. |
| 11. Lower California. | |

72. LOCATIONS. Locate the above features by applying the methods suggested in Sec. 18.

73. DRILL. Apply the drill exercises suggested in Sec. 19.

74. TEST. Apply the tests suggested in Sec. 20.

75. REVIEW. Drill and test the class in the location of the following features:

(a) *North America (first time over):* Alaska, Appalachian Mts., Arctic Ocean, Atlantic Ocean, Boston, Canada, Central America, Chicago, Great Lakes, Gulf of Mexico, Hudson Bay, Mexico, Mississippi River, New York City, Pacific Ocean, Rocky Mts., St. Lawrence River, United States, Washington City.

(b) *Europe* (first time over): Alps Mts., Arctic Ocean, Atlantic Ocean, Austria-Hungary, Belgium, Berlin, Black Sea, Bosphorus, Bulgaria, Caspian Sea, Constantinople, Danube River, Dardanelles, Denmark, England, France, Germany, Great Britain, Greece, Holland, Iceland, Ireland, Italy, London, Mediterranean Sea, Norway, Paris, Portugal, Rome, Roumania, Russia, Scotland, Sicily, Spain, St. Petersburg, Sweden, Switzerland, Turkey (European).

(c) *California* (first time over): Arizona, Cape Mendocino, Coast Range, Colorado River, Farallone Islands, Golden Gate, Mexico, Mohave Desert, Monterey Bay, Nevada, Oregon, Pacific Ocean, Sacramento River, Salton Sea, San Francisco Bay, San Joaquin River, Santa Barbara Channel, Santa Catalina Island, Mt. Shasta, Sierra Nevada Mts., Tahoe Lake, Tehachapi Pass, Tulare Lake, Yosemite Valley.

See Sec. 21 for suggestions concerning review.

SOUTH AMERICA. (Second time over.)

76. OUTLINE MAP SKETCHING. Apply the method suggested in Sec. 16. See Sec. 22 for hints in sketching the outline of South America.

77. PRONUNCIATION. Apply the method set forth in Sec. 17. The following features are to be taken up in this unit:

- | | |
|---------------|------------------------|
| 1. Bolivia. | 6. Paraguay. |
| 2. Cape Horn. | 7. Peru. |
| 3. Colombia. | 8. Strait of Magellan. |
| 4. Ecuador. | 9. Uruguay. |
| 5. Guiana. | 10. Venezuela. |

78. LOCATIONS. Locate the above features by the method set forth in Sec. 18.

79. DRILL. Use the drills suggested in Sec. 19.

80. TEST. Apply the test methods suggested in Sec. 20.

81. REVIEW. Drill and test the class in the location of the following features:

(a) *South America* (first time over): Amazon River, Andes Mts., Antarctic Ocean, Argentina, Atlantic Ocean, Brazil, Buenos Aires, Caribbean Sea, Chile, Pacific Ocean, Rio de Janeiro, Valparaiso.

(b) *United States* (first time over):

Physical Features, Water: Atlantic Ocean, Chesapeake Bay, Colorado River, Columbia River, Connecticut River, Great Lakes, Great Salt Lake, Gulf of Mexico, Hudson Bay, Lake Champlain, Lake Erie, Lake Huron, Lake Michigan, Lake Ontario, Lake Superior, Massachusetts Bay, Mississippi River, Missouri River, Niagara Falls, Ohio River, Pacific Ocean,

Potomac River, Puget Sound, Rio Grande, San Francisco Bay, St. Lawrence River.

Physical Features, Land: Adirondack Mts., Appalachian Mts., Cape Cod, Cape Hatteras, Cascade Mts., Coast Range, Long Island, Mississippi Valley, Rocky Mts., Sierra Nevada Mts., Yellowstone Park.

(c) *The Earth as a Whole* (second time over): Antarctic Circle, Arctic Circle, Equator, North Frigid Zone, North Temperate Zone, South Frigid Zone, South Temperate Zone, Torrid Zone, Tropic of Cancer, Tropic of Capricorn.

See Sec. 21 for suggestions concerning review.

AFRICA. (Second time over.)

82. OUTLINE MAP SKETCHING. Apply the method described in Sec. 16. See Sec. 28 for suggestive hints to aid in sketching the outline of Africa.

83. PRONUNCIATION. Apply Sec. 17. The following features are to be taken up in this unit:

- | | |
|----------------------|------------------------|
| 1. Abyssinia. | 9. Madagascar. |
| 2. Algeria. | 10. Morocco. |
| 3. Atlas Mts. | 11. Sahara Desert. |
| 4. Azores Islands. | 12. St. Helena Island. |
| 5. Canary Islands. | 13. Suez Canal. |
| 6. Darkest Africa. | 14. Tripoli. |
| 7. Gulf of Guinea. | 15. Tunis. |
| 8. Kongo Free State. | |

84. LOCATIONS. Teach the location of the above features by the method set forth in Sec. 18.

85. DRILL. Use the drills suggested in Sec. 19.

86. TEST. Apply the test methods suggested in Sec. 20.

87. REVIEW. Drill and test the class in the location of the following features:

(a) *Africa* (first time over): Alexandria, Antarctic Ocean, Atlantic Ocean, Barbary States, Cairo, Cape Colony, Cape of Good Hope, Cape Town, Egypt, Indian Ocean, Isthmus of Suez, Kongo River, Mediterranean Sea, Nile River, Red Sea, Strait of Gibraltar.

(b) *California* (first time over): Arizona, Cape Mendocino, Coast Range, Colorado River, Farallone Islands, Golden Gate, Mexico, Mohave Desert, Monterey Bay, Nevada, Oregon, Pacific Ocean, Sacramento River, Salton Sea, San Francisco Bay, San Joaquin River, Santa Barbara Channel, Santa Catalina Island, Mt. Shasta, Sierra Nevada Mts., Tahoe Lake, Tehachapi Pass, Tulare Lake, Yosemite Valley.

(c) *North America* (second time over): Bering Sea, Bering Strait, Caribbean Sea, Cuba, Greenland, Gulf of California, Gulf of St. Lawrence, Havana, Hawaiian Islands, Isthmus of Panama, Lower California, Mexico, Montreal, Newfoundland, New Orleans, Porto Rico, Rio Grande, San Francisco, Vancouver Island, West Indies, Yukon River.

See Sec. 21 for suggestions concerning review.

AUSTRALIA AND PACIFIC ISLANDS. (Second time over.)

88. OUTLINE MAP SKETCHING. Apply the method described in Sec. 16. See Sec. 34 for suggestive hints.

89. PRONUNCIATION. Apply the method set forth in Sec. 17. The following features are to be taken up in this unit:

- | | |
|------------------|--------------------|
| 1. Borneo. | 6. New Guinea. |
| 2. Guam. | 7. Samoan Islands. |
| 3. Java. | 8. Sumatra. |
| 4. Luzon Island. | 9. Tasmania. |
| 5. Melbourne. | |

90. LOCATIONS. Teach the location of the above features by applying the method set forth in Sec. 18.

91. DRILL. Apply the drills suggested in Sec. 19.

92. TEST. Apply Sec. 20.

93. REVIEW. Drill and test the class in the location of the following features:

(a) *Australia and Pacific Islands* (first time over): Australia, East Indies, Hawaiian Islands, Honolulu, Indian Ocean, International Date Line, Manila, New Zealand, Pacific Ocean, Philippines, Sydney.

(b) *The Earth as a Whole* (second time over): Antarctic Circle, Arctic Circle, Equator, North Frigid Zone, North Temperate Zone, South Frigid Zone, South Temperate Zone, Torrid Zone, Tropic of Cancer, Tropic of Capricorn.

(c) *South America* (second time over): Bolivia, Cape Horn, Colombia, Ecuador, Guiana, Paraguay, Peru, Strait of Magellan, Uruguay, Venezuela.

See Sec. 21 for suggestions concerning review.

ASIA. (Second time over.)

94. OUTLINE MAP SKETCHING. Apply the method set forth in Sec. 16. See Sec. 40 for suggestive hints.

95. PRONUNCIATION. Apply Sec. 17. The following features are to be taken up in this unit:

- | | |
|-----------------|-------------------|
| 1. Afghanistan. | 3. Bay of Bengal. |
| 2. Arabian Sea. | 4. Bombay. |

- | | |
|----------------|--------------------|
| 5. Ceylon. | 14. Manchuria. |
| 6. China Sea. | 15. Mt. Everest. |
| 7. Dead Sea. | 16. Persian Gulf. |
| 8. Formosa. | 17. Siam. |
| 9. Hoang-ho. | 18. Ural Mts. |
| 10. Hongkong. | 19. Ural River. |
| 11. Japan Sea. | 20. Vladivostok. |
| 12. Kamehatka. | 21. Yangtse-kiang. |
| 13. Korea. | 22. Yokohama. |

96. LOCATIONS. Teach the location of the above features by applying the suggestions in Sec. 18.

97. DRILL. Apply the drills outlined in Sec. 19.

98. TEST. Apply Sec. 20.

99. REVIEW. Drill and test the class in the location of the following features:

(a) *Asia* (first time over): Arabia, Arctic Ocean, Black Sea, Calcutta, Caspian Sea, Chinese Empire, Desert of Gobi, Euphrates River, Ganges River, Himalaya Mts., India, Indian Ocean, Indus River, Japan, Jerusalem, Jordan River, Mecca, Pacific Ocean, Peking, Persia, Red Sea, Siberia, Steppes, Tibet, Tokio, Turkey (Asiatic).

(b) *North America* (second time over): Bering Sea, Bering Strait, Caribbean Sea, Cuba, Greenland, Gulf of California, Gulf of St. Lawrence, Havana, Hawaiian Islands, Isthmus of Panama, Lower California, Mexico, Montreal, Newfoundland, New Orleans, Porto Rico, Rio Grande, San Francisco, Vancouver Island, West Indies, Yukon River.

(c) *Africa* (second time over): Abyssinia, Algeria, Atlas Mts., Azores Islands, Canary Islands, Darkest Africa, Gulf of Guinea, Kongo Free State, Madagascar, Morocco, Sahara Desert, St. Helena Island, Suez Canal, Tripoli, Tunis.

See Sec. 21 for suggestions concerning review.

EUROPE. (Second time over.)

100. OUTLINE MAP SKETCHING. Apply the method described in Sec. 16. See Sec. 46 for hints.

101. PRONUNCIATION. Apply Sec. 17. The following features are to be taken up in the treatment of this unit:

- | | |
|-------------------|----------------------|
| 1. Adriatic Sea. | 7. Brussels. |
| 2. Aegean Sea. | 8. Caucasus Mts. |
| 3. Appennines. | 9. Edinburgh. |
| 4. Athens. | 10. English Channel. |
| 5. Baltic Sea. | 11. Gibraltar. |
| 6. Bay of Biscay. | 12. Lake Geneva. |

- | | |
|-------------------|--------------------------|
| 13. Liverpool. | 20. Strait of Dover. |
| 14. Madrid. | 21. Strait of Gibraltar. |
| 15. Naples. | 22. Thames River. |
| 16. North Sea. | 23. The Hague. |
| 17. Pyrenees Mts. | 24. Tiber River. |
| 18. Rhine River. | 25. Venice. |
| 19. Seine River. | 26. Vesuvius. |

102. LOCATIONS. Teach the location of the above features by applying the methods set forth in Sec. 18.

103. DRILL. Use the drills suggested in Sec. 19.

104. TEST. Apply Sec. 20.

105. REVIEW. Drill and test the class in the location of the following features:

(a) *Europe* (first time over): Alps Mts., Arctic Ocean, Atlantic Ocean, Austria-Hungary, Belgium, Berlin, Black Sea, Bosphorus, Bulgaria, Caspian Sea, Constantinople, Danube River, Dardanelles, Denmark, England, France, Germany, Great Britain, Greece, Holland, Iceland, Ireland, Italy, London, Mediterranean Sea, Norway, Paris, Portugal, Rome, Roumania, Russia, Scotland, Sicily, Spain, St. Petersburg, Sweden, Switzerland, Turkey (European).

(b) *The Earth as a Whole* (second time over): Antarctic Circle, Arctic Circle, Equator, North Frigid Zone, North Temperate Zone, South Frigid Zone, South Temperate Zone, Torrid Zone, Tropic of Cancer, Tropic of Capricorn.

(c) *South America* (second time over): Bolivia, Cape Horn, Colombia, Ecuador, Guiana, Paraguay, Peru, Strait of Magellan, Uruguay, Venezuela.

(d) *Australia and Pacific Islands* (second time over): Borneo, Guam, Java, Luzon Island, Melbourne, New Guinea, Samoan Islands, Sumatra, Tasmania.

See Sec. 21 for suggestions concerning the method of the review.

UNITED STATES. (Second time over.)

106. OUTLINE MAP SKETCHING. Apply the method set forth in Sec. 16. See Sec. 52 for hints.

107. PRONUNCIATION. Apply Sec. 17. The following features are to be taken up in the treatment of this unit:

(a) *States and Territories:*

- | | |
|----------------|--------------------------|
| 1. Alabama. | 5. Colorado. |
| 2. Arizona. | 6. Connecticut. |
| 3. Arkansas. | 7. Delaware. |
| 4. California. | 8. District of Columbia. |

9. Florida.
10. Georgia.
11. Idaho.
12. Illinois.
13. Indiana.
14. Indian Territory.
15. Iowa.
16. Kansas.
17. Kentucky.
18. Louisiana.
19. Maine.
20. Maryland.
21. Massachusetts.
22. Michigan.
23. Minnesota.
24. Mississippi.
25. Missouri.
26. Montana.
27. Nebraska.
28. Nevada.
29. New Hampshire.

30. New Jersey.
31. New Mexico.
32. New York.
33. North Carolina.
34. North Dakota.
35. Ohio.
36. Oklahoma.
37. Oregon.
38. Pennsylvania.
39. Rhode Island.
40. South Carolina.
41. South Dakota.
42. Tennessee.
43. Texas.
44. Utah.
45. Vermont.
46. Virginia.
47. Washington.
48. West Virginia.
49. Wisconsin.
50. Wyoming.

(b) *Cities:*

- | | |
|-----------------|--------------------|
| 1. Boston. | 7. Salt Lake City. |
| 2. Chicago. | 8. San Francisco. |
| 3. Denver. | 9. Seattle. |
| 4. New Orleans. | 10. St. Louis. |
| 5. New York. | 11. Washington. |
| 6. Omaha. | |

108. LOCATIONS. Teach the location of the above features by applying the method set forth in Sec. 18. In this unit there are so many new locations to teach that the work must be done in installments. Take up the states in the groups in which they have been treated in the *Introductory Geography* text-book: New England States; Middle Atlantic States; Southern States; Central States; and Western States. Drill and test the class in the location of the states of each group before passing on to the next. In this way confusion will be avoided.

When the states have been thoroughly treated, take up the location of the cities.

109. DRILL. Use the drills set forth in Sec. 19.

110. TEST. Each group should be tested when it has been sufficiently drilled upon. The final test should involve the whole list of states and cities. For this exercise have at hand outline maps of the United States showing the outlines of all the states and territories. Then apply the method suggested in Sec. 20, subdivision (a). Have the pupils write the

numbers instead of the names. Test, also, with the method described in Sec. 19, subdivision (d).

111. REVIEW. Drill and test the class in the location of the following features:

(a) *United States* (first time over):

Physical Features, Water: Atlantic Ocean, Chesapeake Bay, Colorado River, Columbia River, Connecticut River, Great Lakes, Great Salt Lake, Gulf of Mexico, Hudson River, Lake Champlain, Lake Erie, Lake Huron, Lake Michigan, Lake Ontario, Lake Superior, Massachusetts Bay, Mississippi River, Missouri River, Niagara Falls, Ohio River, Pacific Ocean, Potomac River, Puget Sound, Rio Grande, San Francisco Bay, St. Lawrence River.

Physical Features, Land: Adirondack Mts., Appalachian Mts., Cape Cod, Cape Hatteras, Cascade Mts., Coast Range, Long Island, Mississippi Valley, Rocky Mts., Sierra Nevada Mts., Yellowstone Park.

(b) *North America* (second time over): Bering Sea, Bering Strait, Caribbean Sea, Cuba, Gulf of California, Gulf of St. Lawrence, Havana, Hawaiian Islands, Isthmus of Panama, Lower California, Mexico, Montreal, Newfoundland, New Orleans, Porto Rico, Rio Grande, San Francisco, Vancouver Island, West Indies, Yukon River.

(c) *Africa* (second time over): Abyssinia, Algeria, Atlas Mts., Azores Islands, Canary Islands, Darkest Africa, Gulf of Guinea, Kongo Free State, Madagascar, Morocco, Sahara Desert, St. Helena Island, Suez Canal, Tripoli, Tunis.

(d) *Asia* (second time over): Afghanistan, Arabian Sea, Bay of Bengal, Bombay, Ceylon, China Sea, Dead Sea, Formosa, Hoang-ho, Hongkong, Japan Sea, Kamchatka, Korea, Manchuria, Mt. Everest, Persian Gulf, Siam, Ural Mts., Ural River, Vladivostok, Yangtse-kiang, Yokohama.

See Sec. 21 for suggestions concerning the method of the review.

CALIFORNIA. (Second time over.)

112. OUTLINE MAP SKETCHING. Apply the method set forth in Sec. 16. See Sec. 58 for hints.

113. PRONUNCIATION. Apply Sec. 17. The following political features are to be taken up in this unit:

- | | |
|-------------------------|----------------------------|
| 1. Alameda County. | 10. Mare Island Navy Yard. |
| 2. Berkeley. | 11. Marin County. |
| 3. Contra Costa County. | 12. Monterey County. |
| 4. Eureka. | 13. Napa County. |
| 5. Fresno. | 14. Oakland. |
| 6. Fresno County. | 15. Sacramento. |
| 7. Kern County. | 16. Sacramento County. |
| 8. Los Angeles. | 17. San Diego. |
| 9. Los Angeles County. | 18. San Diego County. |

- | | |
|---------------------------|--------------------------|
| 19. San Francisco. | 24. Santa Clara County. |
| 20. San Jose. | 25. Solano County. |
| 21. San Mateo County. | 26. Sonoma County. |
| 22. Santa Barbara. | 27. Stanford University. |
| 23. Santa Barbara County. | |

Note: A clear idea of the location of each of the above would seem to be of value to any well-informed Californian. But in addition there should be added to this list such local features as it may be necessary for the pupils to hold in visual memory. Thus in the schools of Kings County there should be added to the list the following: Kings River, Hanford, Kings County, Tulare County, and San Luis Obispo County. And in like manner in Sonoma County it would be well to include Petaluma, Santa Rosa, Healdsburg, Sonoma, Lake County, and Mendocino County in the list. Each teacher should add such local features as may be of sufficient importance.

114. LOCATIONS. Apply the methods set forth in Sec. 18 in teaching the location of the above features.

It will be well to keep the counties in a group during the exercises in locating, location drills, and testing, so that the class may see clearly their relative size and position on the map.

115. DRILL. Apply the drills described in Sec. 19.

116. TEST. Apply Sec. 20.

117. REVIEW. Drill and test the class in the location of the following features: (See Sec. 21 for suggestions concerning review work.)

(a) *California* (first time over): Arizona, Cape Mendocino, Coast Range, Colorado River, Farallone Islands, Golden Gate, Mexico, Mohave Desert, Monterey Bay, Nevada, Oregon, Pacific Ocean, Sacramento River, Salton Sea, San Francisco Bay, San Joaquin River, Santa Barbara Channel, Santa Catalina Island, Mt. Shasta, Sierra Nevada Mts., Tahoe Lake, Tehachapi Pass, Tulare Lake, Yosemite Valley.

(b) *South America* (second time over): Bolivia, Cape Horn, Colombia, Ecuador, Guiana, Paraguay, Peru, Strait of Magellan, Uruguay, Venezuela.

(c) *Australia and Pacific Islands* (second time over): Borneo, Guam, Java, Luzon Island, Melbourne, New Guinea, Samoan Islands, Sumatra, Tasmania.

(d) *Europe* (second time over): Adriatic Sea, Aegean Sea, Appennines, Athens, Baltic Sea, Bay of Biscay, Brussels, Caucasus Mts., Edinburgh, English Channel, Gibraltar, Lake Geneva, Liverpool, Madrid, Naples, North Sea, Pyrenees Mts., Rhine River, Seine River, Strait of Dover, Strait of Gibraltar, Thames River, The Hague, Tiber River, Venice, Vesuvius.

(e) *Asia* (second time over): Afghanistan, Arabian Sea, Bay of Bengal, Bombay, Ceylon, China Sea, Dead Sea, Formosa, Hoang-ho, Hongkong,

Japan Sea, Kamchatka, Korea, Manchuria, Mt. Everest, Persian Gulf, Siam, Ural Mts., Ural River, Vladivostok, Yangtse-kiang, Yokohama.

(f) *United States* (second time over) :

States and Territories: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Indian Territory, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Cities: Boston, Chicago, Denver, New Orleans, New York, Omaha, Salt Lake City, San Francisco, Seattle, St. Louis, Washington.

(g) *California* (second time over) : Alameda County, Berkeley, Contra Costa County, Eureka, Fresno, Fresno County, Kern County, Los Angeles, Los Angeles County, Mare Island Navy Yard, Marin County, Monterey County, Napa County, Oakland, Sacramento, Sacramento County, San Diego, San Diego County, San Francisco, San Jose, San Mateo County, Santa Barbara, Santa Barbara County, Santa Clara County, Solano County, Sonoma County, Stanford University.

See Sec. 21 for suggestions concerning review work.

REVIEW WORK FOR THE SIXTH, SEVENTH, AND EIGHTH GRADES.

The foregoing course under ordinary conditions should be completed at the end of the fifth grade. If, however, due to special circumstances, the teacher is unable to cover the work in these two years of the fourth and fifth grades she should continue it on its accustomed schedule of two periods per week until it has been completed. It may be possible, on the other hand, under most favorable conditions to finish the course before the close of the fifth year; and if this can be done, (thorough work being the standard at all times,) so much the better. The point is that every part of the course should be taught and each review dwelled upon until satisfactory results have been attained.

This done, whether it be at the end of the fifth year or before or after that time, the regular final review schedule should be taken up. This work requires one forty-minute period every second week, or one fifteen-minute period every week, and should be continued throughout the sixth, seventh, and eighth grades. The class should follow the review course outlined below, and in each review period should cover as many features as possible, clear visualizations of map locations being the standard. In case weakness is shown in recalling any of the mental map pictures, enough drill work (see Sec. 19) should be given to remove the difficulty.

This work should be systematic. If a review period is missed through holiday or other interference, it should be made up. Unless order and sequence mark review exercises the map visualizations that have been secured will fade out and the results of the course will be largely lost. Upon faithful review work depends the permanence of the impressions gained in the first two years' work.

Besides these regular bi-weekly or weekly review exercises, the class should go over the map geography of the different areas as each area comes up for treatment in the descriptive geography course. Thus, when Europe is taken up for descriptive work that work should be prefaced by a brisk review of the map geography of Europe, both first and second times over. Such occasional review exercises should not be considered a part of the systematic review work referred to above, but should be given when occasion for them arises in time taken from the descriptive geography course.

The drill methods outlined in Sec. 19, subdivisions (d) and (f), are especially recommended for this review work. They are thorough and time-saving. Each day's work should include as many features as may be thoroughly treated, and the class should proceed systematically from the beginning to the end of the course as outlined below. In this way it will

be found possible to complete the review of the map geography of the world at least once each school year. In smaller classes the proposed schedule will make it possible to cover the whole ground two times each year.

1. *The Earth as a Whole, first time over:*

Africa.	Europe.
Antarctic Ocean.	Indian Ocean.
Arctic Ocean.	North America.
Asia.	Pacific Ocean.
Atlantic Ocean.	South America.
Australia.	

2. *The Earth as a Whole, second time over:*

Antarctic Circle.	South Frigid Zone.
Arctic Circle.	South Temperate Zone.
Equator.	Torrid Zone.
North Frigid Zone.	Tropic of Cancer.
North Temperate Zone.	Tropic of Capricorn.

3. *North America, first time over:*

Alaska.	Hudson Bay.
Appalachian Mts.	Mexico.
Arctic Ocean.	Mississippi River.
Atlantic Ocean.	New York City.
Boston.	Pacific Ocean.
Canada.	Rocky Mts.
Central America.	St. Lawrence River.
Chicago.	United States.
Great Lakes.	Washington City.
Gulf of Mexico.	

4. *North America, second time over:*

Bering Sea.	Mexico.
Bering Strait.	Montreal.
Caribbean Sea.	Newfoundland.
Cuba.	New Orleans.
Greenland.	Porto Rico.
Gulf of California.	Rio Grande.
Gulf of St. Lawrence.	San Francisco.
Havana.	Vancouver Island.
Hawaiian Islands.	West Indies.
Isthmus of Panama.	Yukon River.
Lower California.	

5. *South America, first time over:*

• Amazon River.	Buenos Aires.
Andes Mts.	Caribbean Sea.
Antarctic Ocean.	Chile.
Argentina.	Pacific Ocean.
Atlantic Ocean.	Rio de Janeiro.
Brazil.	Valparaiso.

6. *South America, second time over:*

Bolivia.	Paraguay.
Cape Horn.	Peru.
Colombia.	Strait of Magellan.
Ecuador.	Uruguay.
Guiana.	Venezuela.

7. *Africa, first time over:*

Alexandria.	Egypt.
Antarctic Ocean.	Indian Ocean.
Atlantic Ocean.	Isthmus of Suez.
Barbary States.	Kongo River.
Cairo.	Mediterranean Sea.
Cape Colony.	Nile River.
Cape of Good Hope.	Red Sea.
Cape Town.	Strait of Gibraltar.

8. *Africa, second time over:*

Abyssinia.	Madagascar.
Algeria.	Morocco.
Atlas Mts.	Sahara Desert.
Azores Islands.	St. Helena Island.
Canary Islands.	Suez Canal.
Darkest Africa.	Tripoli.
Gulf of Guinea.	Tunis.
Kongo Free State.	

9. *Australia and Pacific Islands, first time over:*

Australia.	Manila.
East Indies.	New Zealand.
Hawaiian Islands.	Pacific Ocean.
Honolulu.	Philippines.
Indian Ocean.	Sydney.
International Date Line.	

10. *Australia and Pacific Islands, second time over:*

Borneo.	New Guinea.
Guam.	Samoa Islands.
Java.	Sumatra.
Luzon Island.	Tasmania.
Melbourne.	

11. *Asia, first time over:*

Arabia.
Arctic Ocean.
Black Sea.
Calcutta.
Caspian Sea.
Chinese Empire.
Desert of Gobi.
Euphrates River.
Ganges River.
Himalaya Mts.
India.
Indian Ocean.
Indus River.

Japan.
Jerusalem.
Jordan River.
Mecca.
Pacific Ocean.
Peking.
Persia.
Red Sea.
Siberia.
Steppes.
Tibet.
Tokio.
Turkey (Asiatic).

12. *Asia, second time over:*

Afghanistan.
Arabian Sea.
Bay of Bengal.
Bombay.
Ceylon.
China Sea.
Dead Sea.
Formosa.
Hoang-ho.
Hongkong.
Japan Sea.

Kamchatka.
Korea.
Manchuria.
Mt. Everest.
Persian Gulf.
Siam.
Ural Mts.
Ural River.
Vladivostok.
Yangtse-kiang.
Yokohama.

13. *Europe, first time over:*

Alps Mts.
Arctic Ocean.
Atlantic Ocean.
Austria-Hungary.
Belgium.
Berlin.
Black Sea.
Bosporus.
Bulgaria.
Caspian Sea.
Constantinople.
Danube River.
Dardanelles.
Denmark.
England.
France.
Germany.
Great Britain.
Greece.

Holland.
Iceland.
Ireland.
Italy.
London.
Mediterranean Sea.
Norway.
Paris.
Portugal.
Rome.
Roumania.
Russia.
Scotland.
Sicily.
Spain.
St. Petersburg.
Sweden.
Switzerland.
Turkey (European).

14. *Europe, second time over:*

Adriatic Sea.
Aegean Sea.
Appennines.
Athens.
Baltic Sea.
Bay of Biscay.
Brussels.
Caucasus Mts.
Edinburgh.
English Channel.
Gibraltar.
Lake Geneva.
Liverpool.

Madrid.
Naples.
North Sea.
Pyrenees Mts.
Rhine River.
Seine River.
Strait of Dover.
Strait of Gibraltar.
Thames River.
The Hague.
Tiber River.
Venice.
Vesuvius.

15. *United States, first time over:*

Physical Features, Water:—

Atlantic Ocean.
Chesapeake Bay.
Colorado River.
Columbia River.
Connecticut River.
Great Lakes.
Great Salt Lake.
Gulf of Mexico.
Hudson River.
Lake Champlain.
Lake Erie.
Lake Huron.
Lake Michigan.

Lake Ontario.
Lake Superior.
Massachusetts Bay.
Mississippi River.
Missouri River.
Niagara Falls.
Ohio River.
Pacific Ocean.
Potomac River.
Puget Sound.
Rio Grande.
San Francisco Bay.
St. Lawrence River.

Physical Features, Land:—

Adirondack Mts.
Appalachian Mts.
Cape Cod.
Cape Hatteras.
Cascade Mts.
Coast Range.

Long Island.
Mississippi Valley.
Rocky Mts.
Sierra Nevada Mts.
Yellowstone Park.

16. *United States, second time over:*

States and Territories:—

Alabama.
Arizona.
Arkansas.
California.
Colorado.

Connecticut.
Delaware.
District of Columbia.
Florida.
Georgia.

Idaho.
Illinois.
Indiana.
Indian Territory.
Iowa.
Kansas.
Kentucky.
Louisiana.
Maine.
Maryland.
Massachusetts.
Michigan.
Minnesota.
Mississippi.
Missouri.
Montana.
Nebraska.
Nevada.
New Hampshire.
New Jersey.

Cities :

Boston.
Chicago.
Denver.
New Orleans.
New York.
Omaha.

New Mexico.
New York.
North Carolina.
North Dakota.
Ohio.
Oklahoma.
Oregon.
Pennsylvania.
Rhode Island.
South Carolina.
South Dakota.
Tennessee.
Texas.
Utah.
Vermont.
Virginia.
Washington.
West Virginia.
Wisconsin.
Wyoming.

Salt Lake City.
San Francisco.
Seattle.
St. Louis.
Washington.

17. *California, first time over:*

Arizona.
Cape Mendocino.
Coast Range.
Colorado River.
Farallone Islands.
Golden Gate.
Mexico.
Mohave Desert.
Monterey Bay.
Nevada.
Oregon.
Pacific Ocean.

Sacramento River.
Salton Sea.
San Francisco Bay.
San Joaquin River.
Santa Barbara Channel.
Santa Catalina Island.
Mt. Shasta.
Sierra Nevada Mts.
Tahoe Lake.
Tehachapi Pass.
Tulare Lake.
Yosemite Valley

18. *California, second time over:*

Alameda County.
Berkeley.
Contra Costa County.
Eureka.
Fresno.
Fresno County.
Kern County.
Los Angeles.
Los Angeles County.
Mare Island Navy Yard.
Marin County.
Monterey County.
Napa County.
Oakland.

Sacramento.
Sacramento County.
San Diego.
San Diego County.
San Francisco.
San Jose.
San Mateo County.
Santa Barbara.
Santa Barbara County.
Santa Clara County.
Solano County.
Sonoma County.
Stanford University.



Fig. 1.
Chalk Relief of Scandinavia.

SCANDINAVIA:

AN EXAMPLE OF THE
CHALK-TALK METHOD IN GEOGRAPHY

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METHOD IN GEOGRAPHY TEACHING.

A text-book in geography can furnish maps and can serve as a statistical reference book; but by the nature of the case, a text-book can never be an important source of that body of general information which it is the essential purpose of geography teaching to furnish. In order to give pupils practicable information concerning the conditions in foreign countries—modes of living, agricultural, industrial, social, and climatic conditions, etc., it is necessary that the child should receive it in concrete form, chiefly in mental pictures which he may clearly visualize. It is not necessary, nor is it even desirable, that the pupil should remember these varied details; but these concrete pictures are the only material out of which generalizations can be constructed, and the mass of such details will fade away into that perspective and general feeling which all persons of general intelligence possess. But it is necessary for the pupil to go through this mass of concrete detail in order to comprehend a generalization he may find in the text. The fields of geographical information are so vast and so varied that a text-book which would include this concrete material necessarily must be a library of books. No two covers could possibly encompass this varied mass. The texts therefore are necessarily so condensed and the language into which the facts must be compressed so general and abstract, that concrete picture-thinking is impossible from them. The pupil cannot, therefore, read the texts understandingly; and if he succeeds in making out the words, they do not create concrete pictures for him. As a consequence, the best that the children of the schools can do is to memorize the words of these condensed general statements in order to recite or to pass the examinations necessary for promotion.

What are we as teachers to do about it? If consciences are perfunctory, the State Board of Education can prescribe texts, the State and County Superintendents can rigidly enforce their exclusive use, and teachers can teach under this wretched pretense of real instruction; but let us at least be frankly aware that we are forcing indigestible mental food upon the children. If our consciences are not perfunctory, we must recognize that systems of instruction have found only two alternative methods of escape from the wretched system of geography and history teaching which formal administration of the schools permits, and has forced, and is now forcing, upon the schools:

1. *The Method of Supplementary Reading.* The schools may be supplied by their libraries with a variety of supplementary books in travel, characteristic descriptive stories of adventure and incidents suitable to children's reading.

2. *The Method of Oral Instruction by the Teacher.* In this case, the teacher becomes the source of this concrete knowledge and gives to the

pupils by oral talks, framed in matter and concrete form to call up mental pictures of distant countries; the teacher must further work up these concrete pictures into the form of general information which the average person of intelligence possesses concerning those distant lands.

The first alternative method has occasionally been tried in sporadic instances, but owing to the lack, until the very recent past, of a reference book to this supplementary material and to tendency in this method to drift into wandering and foggy recitations, it has thus far not proved of very general acceptance. Bulletin No. 2 of this series, prepared by Mr. Frank Bunker, is really the first and only comprehensive effort to offer a method, and furnish a reference book to supplementary geographical readings for school use. In Bulletin No. 6 of this series, just issued, Mr. Bunker further illustrates the method concretely in a special treatment of China.

In the present Bulletin, Mr. Kenyon offers concrete illustration of the other alternative method—that of oral instruction combined with blackboard illustration. The German schools have long made extensive use of an oral method in teaching geography, and Mr. Kenyon as a supervisor of geography teaching in the Training Schools of the Normal School has worked out with the student-teachers a feasible method of oral instruction, especially serviceable in the intermediate grades, where any reading by pupils is attended with considerable difficulty. His method also has an advantage in any grade where the administration of the school fails to supply sufficient supplementary reading to make the first method practicable. The chief features of the plan are that the teacher reads the supplementary material, arranges it in the form of a chalk or blackboard lesson, by which the information is given concretely and systematically; and then follows class discussions and recitations, concluding with memory drills and examinations upon those final generalizations which constitute the knowledge which persons of average general culture and intelligence possess.

Neither of these alternative systems excludes the use of the text. But they make use of it for its maps, and as a review *after the concrete information* necessary for its comprehension has been acquired.

For the purpose of illustrating this method of teaching geography Mr. Kenyon has selected Scandinavia because it serves very neatly as a type, and permits brevity with some necessary degree of thoroughness.

Before entering upon the industrial, cultural, and descriptive material Mr. Kenyon's method requires that an accurate and clear mental picture of the map be established in the pupils' minds. The insistency he urges to secure a mental picture rather than what may be mere pictureless word-statements *about* the map, will be profitably noted. Far too large a majority of pupils in the schools study their maps in this way; the teacher assigns a number of places to be found upon the map. The pupils write down the list, spend much time in finding them, and thereupon write down in sentences upon paper the location, as, for example, "St. Louis is on the eastern boundary of Missouri upon the Mississippi River." This is what they memorize—the

words, not the map. Such knowledge, while it too often deceives the teacher in the subsequent recitation, is of little or no value as geographical knowledge, and it can serve no purpose except that of word-examination. What is necessary is a clear map-image indelibly impressed upon the visual memory, so that the child sees Missouri, St. Louis, the Mississippi River, in their relative positions and as a part of the map-image of the United States. *To secure this map memory, our school drill must be upon maps, not upon words, and the map must be constantly used in the study while the child's mind is in a state of active attention.*

It is assumed that before taking up Scandinavia there has been a thorough map drill of the whole world and also of Europe, as detailed in the formal course in map geography as outlined in Bulletin No. 2 (pp. 12-23). It will be noted that no exhaustive amount of map geography is required—only the picture-memory of those places and physical conditions with which the person of average intelligence is familiar, and which will be used in the descriptive material the teacher later details.

TREATMENT OF THE LESSON UNITY.

The term "lesson unit" is borrowed from the "Method of the Recitation," by Charles and Frank McMurry, a book with which every practical teacher should be familiar. The lesson unities are first stated. Following each of these lesson unities, which are printed in italics, are a number of references for the teacher's reading which bring out the thought of the lesson unity. One chief danger threatens this point in method. The teacher may be led away from her lesson unity by these mere incidents of the reference cited, and consequently the class discussion becomes wandering. The only purpose of the reference is to furnish concrete mental pictures illustrative of the lesson unit, and it is essential that the teacher never allows this thought of the lesson unit to wobble from the focus of her consciousness, nor from that of her pupils. The story or mental-picture material must be merely illustrative of this lesson point. For this reason, it will be observed that in Mr. Kenyon's treatment he devotes some space, following the statement of the lesson unity to running discussion of what is to be brought out of the reference cited to illustrate the lesson unit. In framing chalk lessons upon this model the utmost care should be taken that no matter be introduced which oversteps the lesson unit.

It will also be noted that the thought of the lesson unity is sometimes a feeling and sometimes an industrial or physical fact. The first lesson unity has for its purpose the association with Scandinavia, the poetic feeling for the old Viking life. It is necessary that the lesson unit should be feelingly presented as literature. If we analyze our geographical content we find that these feeling elements make up a large part, and they should not be neglected as they have been in mere text treatment.

If the work of instruction ended merely with the chalk-talk the pupil would not carry much knowledge away with him. This stage is therefore

a second chief danger. It is necessary to work up the mental pictures which the chalk lesson presents by class discussions, and recitations. Moreover, out of each of these chalk lessons a few formal facts are valuable for life, and therefore must be memorized, and it will be necessary to review them frequently and test pupils by examination. But facts learned in this way after a wealth of concrete pictures and incidents have been presented are altogether different from words memorized from a text-book without any such background. Such facts are the figures in the foreground, while the chalk lesson is the perspective. It is at this point that the text-book may profitably be introduced as one form of review. Condensed statement of facts already presented in concrete form is now of service.

Another salient principle of method which Mr. Kenyon's treatment illustrates is the order of presentation of the chief elements of geographical knowledge—map location, descriptive feelings and facts, causal relations in physical, social, and industrial geography. Geography is spatial, and these spatial relations are first visualized accurately and impressed indelibly upon the *visual* memory. Then with the map pictures are associated the descriptive material, feelings, incidents, etc., in concrete form, and from these are worked out general statements of enduring value. Finally, after the children know and feel certain conditions and facts, the causes of these are undertaken. It is needless to defend this order, though it is rare in geographical treatment. It is folly to talk about geographical conditions before they can be visualized accurately, and it is equal folly to force pupils to explain the causes of conditions of which they know nothing as yet; after the conditions are known, then is the time, by virtue of logic as well as of interest, to explain the cause.

For the assistance of teachers in framing chalk lessons in relation to other geographical areas, upon the model of Scandinavia as presented by Mr. Kenyon, the following schema is given. Corresponding with the Roman numerals of this schema, there will be found in the Bulletin the same numerals, so that the plan may be followed in exemplification.

GENERAL SCHEMA OF CHALK LESSONS.

I. Succinct statement, at the beginning of the treatment of each geographical area, of the goals or lesson unities of this area. (For form, see Bulletins Nos. 5 and 6.)

II. Repetition of each of these goals or lesson unities separately. (A lesson unity may, of course, include several lessons.)

III. Enlargement of this statement, in style to correspond to its inherent quality, aiming not to become a source of information, but to give tasty suggestions which will lead to thorough reading by the teacher of the references cited; and also to touch upon all essential fields of data obtainable in these references necessary to develop the goal or lesson unity stated. Specific references should be interlarded in the body of this section.

IV. Detailed references of children's and teachers' reading, annotated to show the features which illustrate the stated goal or lesson unity.

V. (For lesson unities which have any informational character.) Statement in concise form of the information to be remembered or memorized. A test of such information should be whether or not this knowledge is the common possession of the average person of intelligence.

VI. Use text as final review.

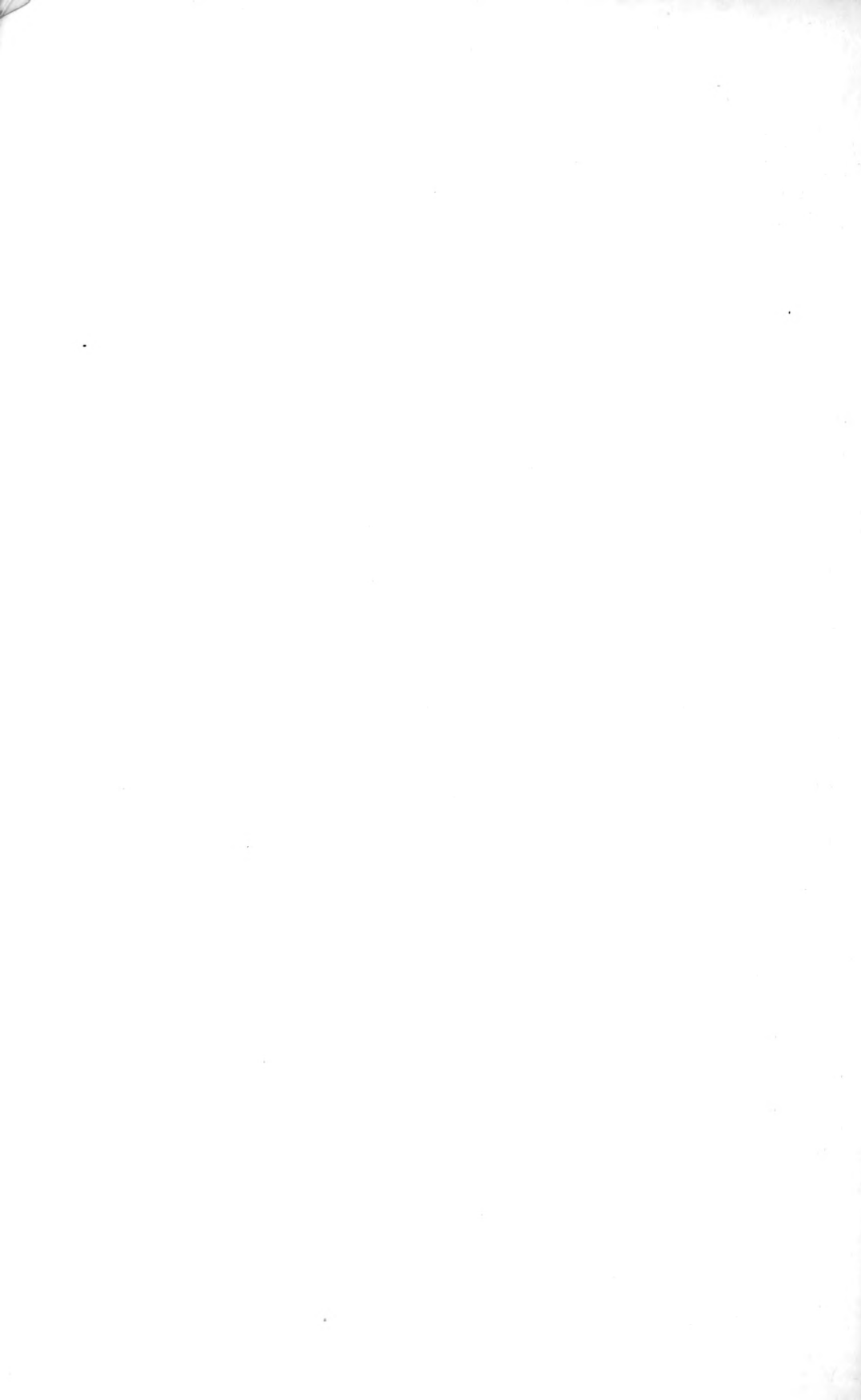
VII. (a) (For those lesson unities stating physical, commercial, or industrial features.) After the descriptive treatment including the feeling elements have thus been presented, in I, II, III, and IV, proceed to explain each specific feature of essential importance in the given area, tracing its development out of physical causes and conditions (the influence of erosion, valley formation, winds, rainfall, ocean currents, etc., will here be introduced, each treated with specific reference to the local conditions; all important physical features will thus be covered, *after the descriptive treatment* has aroused an interest in them, and each treatment will be specific and not general, enabling pupils to think clearly in mental images. Physical experiments, board drawings, apparatus, etc., are here introduced); also state and illustrate specifically, each trade center of each industry in a given area, tracing (when these are matters of common knowledge) the means of transportation of products, the chief foreign markets, and the chief products, not only of importation, but exportation as well.

(b) (For social, historical, scenic, or other lesson unities.) After the descriptive treatment, including the feeling elements, have thus been presented in I, II, III, and IV, proceed to trace the character of the people or other feature under consideration, to their physical, industrial, historical, or other natural causes.

VIII. (For lesson unities in which either (a) or (b) of VII have any informational character.) Statements in concise form of all knowledge, belonging to common currency, to be remembered by pupils.

General—For every paragraph or section of treatment throughout; the pedagogical purpose of the treatment or the method of presentation should be distinctly stated, even at the risk of repetition. This will constitute a body of practical pedagogy.

FREDERIC BURK.



NOTE.

There is a so-called German method of instructing, whereby the teacher, in a series of familiar talks with his pupils, imparts the knowledge content of the subject being taught. Whereafter, the pupils being duly subjected to oral and written tests, the teaching is complete. While to the live American teacher such a plan may lack either foreign flavor or novelty, it must certainly appear to have a special value in those grades for which there is a dearth of informational reading. In such a situation, the teacher, by the word-of-mouth method, becomes the source of that information upon which the lessons are based. It is needless to remark that this plan implies a free perusal, on her part, of the books whose contents she is to assimilate and represent to the children, in such an adapted form as will reach their understanding and win their interest. Meanwhile it is presumed that such meager reading as is available for the grade being taught will be placed in the children's hands, as supplemental to the teacher's own descriptions.

The addition to these recitals by the teacher of suitable blackboard sketches, *done while she talks*, constitutes the chalk-talk treatment of a subject. Artistic merit has little to do with the application of this plan. The first requisite is not graphic skill, but merely the *habit* of making marks on the board as one talks. Of course, a good drawing is always better than a bad one, but the teacher who idly dreams of the things she will do "after she has learned to draw" will never do any chalk-talk. Agreed, then, that technical excellence in the drawing is not what we are after, there is, however, one positive requirement. This is, that the diagram, map, or sketch shall be done in the presence of the pupils, while you are talking to them, and in the most intimate illustration of what you are saying. It is evident, then, that this device of chalk-talk is not exclusively for those who draw well, but for every teacher who has courage enough, or ambition enough, to make a chalk-mark on the blackboard. No better illustration of this fact need be given than our experience with our normal students. Our "chalk-talkers" are not in any case selected for their graphic skill. Every girl in the school uses the crayon in an illustrative way, in giving her lessons. She does it as a matter of course, just as she writes. We score our first success when the student "feels lost without the crayon in her hand." After the chalk-talk *habit* is thus fixed, of course some degree of technical skill is readily imparted. Once the novelty wears off, blackboard drawing is just as facile a device as blackboard writing, and just as indispensable. It should be noted that, in the ensuing pages, not all of the illustrations are pictorial in their nature. Some are maps, others are diagrams. But all are equally exemplifications of the chalk-talk idea.

* * *

In the following chalk-talk treatment of Scandinavia the original intention was to adapt it particularly to the fourth grade, with the belief that the

bulk of it would be available also for the third. We determined later, however, to amplify the treatment and the reference list so as to make the study easily adaptable by the teacher to upper grades as well. It is taken for granted, in any case, that the beginnings of formal geography (locating continents, oceans, etc.) will have been taught preceding any such descriptive study. The present treatment opens, therefore, with the formal geography of the specific region, Scandinavia. There follows the descriptive and physical geography, based upon the essential characteristics of the region, and introducing the teacher to detailed references. These page-by-page references, it is hoped, will be received with satisfaction, as a time-saving device. The books cited are in every case those which should appear upon the shelves of a school library.

Each sub-topic is followed by a suitable exercise aiming to clinch and make permanent to the pupil the essential points presented. A book list will be found at the end of the bulletin.

W. J. K.

San Francisco, January 1, 1904.

FORMAL GEOGRAPHY OF THE REGION.

Before taking up the descriptive work which forms the body of this treatment, the formal geography of the Scandinavian Peninsula should be given, about as follows:

In the first place the teacher draws upon her blackboard a good-sized outline of Scandinavia. She shows the fiord coast of Norway with some care, since this is one of the most important features of the map. The lowlands are now filled in with green chalk and the highlands with white. The principal lakes and rivers are put in with charcoal. A few touches of charcoal are used also to shadow the highlands and so bring out the relief effect seen in Fig. 1.

This map should be somewhat carefully drawn. It is to remain on the board for constant reference until the topic of Scandinavia is finished.

There is a very serviceable reference map of the peninsula in Redway's *Advanced Geography*, Appendix XVII. The pictured relief in this bulletin (Fig. 1) is intended for the teacher's copying.

1. Scandinavia in its relation to the rest of Europe.

Have the pupils find the peninsula on the text-book map of Europe. With this map before them let them say what waters and land surround Scandinavia.* Let them say in what direction it lies from us and what ocean we would cross to reach it.*

2. Natural features.

Elicit that the highlands are in the western part, chiefly in Norway; and that the lowlands are in the eastern part, chiefly in Sweden.*

Have the pupils notice the deeply indented coast of Norway. Explain, briefly at this time, that these ocean inlets are called "fiords."

Let them notice that Sweden, in particular, contains a great many lakes.* Also that the longer rivers are in Sweden, showing that the divide of the peninsula is near the western side.*

* In each of these formal map exercises see that the pupil's statement is based upon a *map-image*, and not a *word-image*. In the formula—"New York lies at the mouth of the Hudson River."—the mental picture involved may be any one of three:—

1. It may be the visual image of the printed statement, without reference to the map.
2. It may be the auditory image of the spoken statement, without reference to the map.
3. It may be the visual image of the map area, containing New York and the Hudson River in their locations relative to each other and to the rest of the region.

The teacher is ever in danger of accepting No. 1 or 2, and supposing it to be No. 3.

3. Political boundaries.

Let the pupils find the political boundaries between Norway and Sweden and between these countries and Russia.* This having been done, mark these boundaries in red chalk upon your blackboard map.

4. The cities of Scandinavia.

On the text-book map let the pupils find Stockholm and Christiania, and have them state the location in each case.* Have them locate also Gothenberg, Bergen, Trondhjem and Hammerfest.* As fast as these cities are found locate them in red chalk upon your blackboard map.

The above formal geography material need not take up more than one lesson; and if a few minutes remain, give the first step in fixing the map-image. (See page 5.)

Test.

Let each pupil trace an outline of Scandinavia (as in the first step of "Fixing the Map-Image," p. 5). Let this outline include also the political boundaries.

Have the pupils then print the following names in place: Atlantic Ocean, Arctic Ocean, Baltic Sea, Russia, Norway, Sweden, Stockholm, Christiania, Gothenberg, Bergen, Trondhjem, Hammerfest.

In naming the cities the lettering is to be small and local, and a dot is to be placed upon the proper spot.

Ask these questions in review:

Which country is nearly all highland?

Which country has the longer rivers?

Where are the fiords?

Where are most of the lakes?

FIXING THE MAP-IMAGE.

People who can draw maps or other forms from memory call into action two separate memories. One of these is the visual, which remembers the appearance of the original copy, as to proportion, contour, and color; the other is the motor, in which the muscles and joints remember the motions required to produce any specified drawing. By duly practicing the four steps described below, for two or three minutes during each lesson, the average pupil can learn to draw any map, from memory.

First step.—Tracing through thin paper.

The pupil is given an outline map* and a sheet of transparent paper. The teacher has fastened the two sheets together at the top. On this transparent sheet the pupil traces the outline.

These tracings may be torn off and saved for later use, while the original outline may be laid aside, to be used again.

Repeat this exercise for several days.

Second step.—Copying (preferably on the blackboard).

The teacher draws a large, strong outline on the board or on a large sheet of paper. The pupil copies this, looking at it as frequently as he pleases. The teacher passes rapidly about the room and criticises each drawing. Her criticism should generally call attention to some unique feature of the outline, by which it is most readily memorized. Thus, in the map of California, the north boundary is just as long as the adjacent line of the east boundary. Or, in Eurasia, the southern point of India is about due south of the Gulf of Obi.

Repeat this exercise for several days.

Third step.—Copying, after one preliminary glance.

The pupil is allowed one good look at the teacher's map, after which it is covered up and the pupil proceeds to draw from memory. Time, two minutes. Later reduce the time to one minute.

Each drawing is to be criticised by the teacher.

Repeat this exercise for several days. In cases of slow progress revert to first step.

Fourth step.—Time sketch, without copy.

Pupil draws a one-minute map, from memory. In cases of slow progress revert to third step, or if need be, to first.

Repeat this exercise for several days.

In the descriptive work that follows, begin each day's lesson with a two-minute blackboard exercise on the second, third, or fourth step of Fixing the Map-Image.

* This outline should be strong and black, so as to show clearly through the transparent sheet. Our student-teachers at the school make their own outline maps, using a hectograph for duplicating. The maps are made on a stout manilla paper, cut about 8 x 11.

For the transparent sheet we are using a paper called "onion-skin," which takes ink. We buy a ream, 17 x 22, for \$1.50 at a paper warehouse. We have the dealer cut it into fourths, thus getting four reams 8½ x 11 for \$1.50, or something over twelve sheets for a cent.

(The heavy numerals in the margin refer to corresponding numerals in "General Schema of Chalk Lessons.")

DESCRIPTIVE GEOGRAPHY OF SCANDINAVIA.

LESSON UNITIES.

1. Scandinavia is the ancient home of a vanished race of sea-fighters—the Vikings. 2. It is a region of rugged mountain scenery whose particular features are fiord and lake. 3. It is a region of long and snow-bound winters and short but genial summers. 4. It is the "land of the long night" and "the land of the midnight sun." 5. It is, save for a few cities toward the south, thinly populated by an industrious, frugal people, honest in their dealing, and kindly of heart. 6. The land is not adapted to supporting a large population, so the Scandinavians are notably a seafaring people. 7. In the world's markets this region is known for its coast fisheries, its lumber, and its iron.

II. 1. *Scandinavia is the ancient home of a vanished race of sea-fighters—the Vikings.*

(The following material naturally divides itself into two chalk-talks, one associating Scandinavia with the old Vikings, the other devoted to "The Skeleton in Armor." A simple map, copied from Fig. 3, will be required for frequent reference.)

A thousand years ago there lived in Norway a race of sailor-men who got their living by fighting. Nowadays we should call them pirates, and our men-of-war would sink their boats and hang the crews. But in those times fighting was considered a very decent way of making one's living, and besides that, these Vikings, as they were called, met with none who could withstand them. In their open boats they would sally forth from the narrow, winding bays of Norway (point them out on the map) and cross the North Sea, sometimes to the British Isles, but oftener to the coast of France. Wherever they landed their coming meant defeat and ruin to the people living in that part. The Viking ship was like an immense open rowboat, with one large sail amidships. There were rows of oars along each side to help the sail. In some of these ships the prow was carved in the shape of a dragon's head and the stern was made in imitation of a dragon's tail. Along the sides of the vessel the fighting men arranged their round shields, overlapping, like great fish-scales. Altogether such a Viking ship must have looked like a terrible sea-monster, bearing down upon the shore it was going to attack.

The Vikings were sometimes called Norsemen, because they came from the North. They robbed the people of Northern France so often and were

such irresistible fighters that the king at last offered them a part of the country if they would cease from piracy and come and live in peace. So the robber chieftains settled down and their chieftains became nobles. The country given them by France was called Normandy, because the Vikings were called Norsemen. (Point out the various routes and regions as you go on.)

Other bands of Norsemen sailed their open ships to the British Isles and made conquests over the Britons. Others reached even the coast of Spain and did some fighting there.

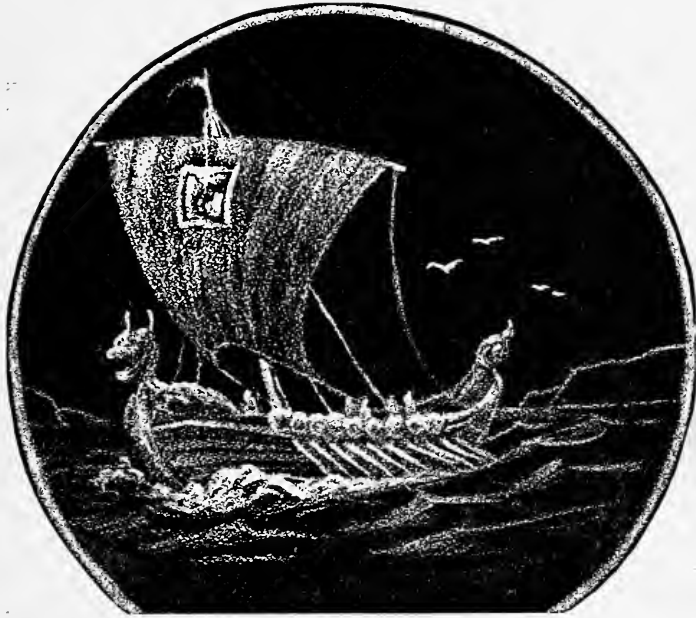


Fig. 2.
A Viking Ship.

Meanwhile some of the Norsemen had sailed west instead of south. These reached Iceland and Greenland, and their descendants are there yet. And greatest adventure of all, at least one ship is thought to have reached America, long before Columbus discovered the new land, and long before it had a name. The story is well told for children in Chapter II, From the Old World to the New; also, in Chapter IV, Children's Stories of American History.

So those old Vikings, whose ships were only overgrown rowboats with one sail apiece, actually sailed across the ocean. They began by stealing out of their home fiords, or bays, and robbing passing ships. And they ended by conquering lands in countries far over the sea. The children will enjoy Miss Hall's stories in Viking Tales. Of these Olaf's Farm and The Sea Fight, in particular, should be read, for the flavor of Viking times which they hold.

The map (Fig. 1) shows the ragged and rocky coast of Norway where these Vikings, or Norsemen, came from. And their descendants live there to this day. But they are no longer sea-robbers. They long ago settled down



Fig. 3.

Some of the Operations of the Vikings.

to hard work at home, and they are as honest and as kind of heart as any other people in the world.

There is a ruinous old stone tower in Rhode Island. For a while no one could find out who built it. Some people liked to fancy that those old

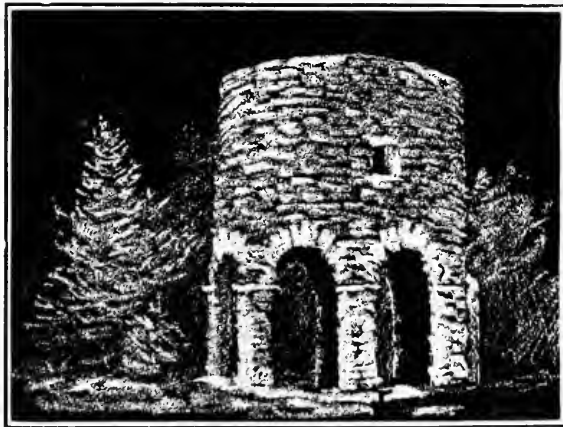


Fig. 4.

“There is an old stone tower”—

Norsemen, who are thought to have come a thousand years ago, were the builders. Nor far away a skeleton was dug up, dressed in armor such as fighting men used to wear hundreds of years ago. When the poet Longfellow heard about this skeleton he made up a fanciful story about it. He said that the soldier in his rusty armor was a Viking of the olden time, who

had stolen a princess in Norway and had come over here to live. This Viking and his men built the old stone tower. The story is put in the form of a poem. It is called

The Skeleton in Armor.

The poem is to be found in any edition of Longfellow. We want it in the present connection to re-enforce that austere, somber, remote atmosphere which permeates our feeling for the Norsemen and their times. Therefore it is available for reading to the fourth, and, perhaps, even to the third grades. They will not understand all of its allusions, but they will absorb those elements of feeling that we are after at present.

There are several other stories of the Vikings available for use in the lower grades, either as substitutes for the above material or as additions to it. Such a one is "Wulf, the Saxon Boy," in Miss Andrews' *Ten Boys*. Although its title implies nothing of Scandinavia, this story is essentially a Norse tale, in its atmosphere, its ethics, and its phraseology. Here Thor, the Thunderer, "lets fly his arrows at his foes" and,

"The Swan-road is ever the road to glory."

A good story of a Viking sea-fight is told in Du Chaillu's *Land of the Long Night*, Chapter XXX. The style is so direct that fourth-year children can read it.

There is a description of the Vikings, readable by third-year children, in Carroll's *Around the World*, Second Book, pp. 83-87. See, also, the verses in the same book, pp. 106-108.

For teachers' reading there are short accounts in Stoddard's *Lectures*, Vol. I, pp. 79, 80, and in *Norway Nights and Russian Days*, pp. 45-52. The chapter on Norsemen in any general history will also be useful. An example is Chapter XII, Duruy's *History of the Middle Ages*, or, better still, Fiske's *Discovery of America*, Chapter II. (See especially pp. 214-215, about the "Northmen's" tower.) In *Land of the Midnight Sun*, Vol. I, pp. 377-383, is given a detailed account of the remains of old Viking boats. There is a good description, also, in *Footprints of Travel*, pp. 239-240. This book contains references to the Viking times, pp. 252-253.

It is well to note that these Vikings, known abroad as robbers and marauders, really had a better home government than did most of the countries they overran. See *Footprints of Travel*, pp. 237, 238.

Written review.

Let the pupils write upon the following topics:

1. The home of the Vikings.
2. The doings of the Vikings.
3. Their visit to America.

Things to remember—

1. That the fiords of Norway were the home of the old Vikings.
 2. That these Vikings became possessed of foreign lands, notably
- V. Normandy, Iceland, and Greenland.
3. That they are believed to have landed on the continent of North America.

Test.

On an outline map (adapted by the teacher from Fig. 3*) let each pupil shade the original home of the Vikings, and also the principal foreign areas in which they operated.

- II. *2. It is a region of rugged mountain scenery whose particular features are fiord and lake.*

With the foregoing historical setting we may approach the wild Norseland in its modern and more strictly geographical aspect. As a basis for the work now to follow, the map, Fig. 1, should be reviewed as to highlands, lowlands, fiords, islands, and lakes.

- III. Nearly all of Norway is a mountain land. But the greater part of Sweden is a lowland, sloping gently from the plateaus of Norway to the coast of the Baltic Sea. If we could cut a model of Scandinavia in two from west to east the cut part would look like Fig. 5. This profile is very easy for grown people to understand, but to make its meaning clear to children we must lead them, objectively, to see the nature of a cross-section. This is easily done with a handful of putty or moist sand or clay. Lay it on any flat surface, such as an old box-cover. Work it roughly into the general form of Scandinavia. Make Norway high and work the Swedish lowlands out low and flat. After the children have seen this and understand clearly what it represents, cut the mass across the middle and push the southern half away. There will then be



Fig. 5.

Profile of Scandinavia.

seen, at the cut place, a cross-section, or profile, of the country, somewhat as in Fig. 6.

Norway is said to have ten thousand islands along its coast. They are all steep, brown hummocks of rock, green with mosses, and very beautiful. Some are large enough for a few fishermen to live upon, with their sheep. Many others are just islets of rock, hardly larger than a good-sized house. Wherever there is a little flat place between the rocks, some farmer-fisherman is sure to build his cottage and bring his cow. Sometimes one family will live all alone upon one of these little rocky islets. A pretty description of

* The teacher makes these outline maps on her hectograph.

this world of islands is given in *Glimpses of Three Coasts*, pp. 221-225. Stoddard, pp. 89-90, gives another. The Lofoden Islands and their famous "Maelstrom" are described in *Footprints of Travel*, pp. 257-259. There are other short descriptions in *Modern Europe*, 107-111, and in *Johannot's Geographical Reader*, 173-174. For the old, fanciful notion of the Maelstrom and its terrors, of course nothing can surpass Edgar Allen Poe's imaginative description.



Fig. 6.

Cut the mass across the middle and push the lower half away.

After sailing for hours among these islands (Fig. 7 will do for a blackboard sketch), the steamer comes at last to the mainland. It does not stop, even then, but enters a fiord instead and keeps sailing among the mountains quite out of sight of the sea. The coast of Norway rises abruptly out of the water. But this sea-front is broken by hundreds of deep and sinuous inlets, called fiords. By these the deep sea pierces, sometimes for a hundred miles, into the very heart of the mountain land. So the odd sight is to be seen, in that country, of ocean steamers sailing among the mountains many miles inland from the ocean. Stoddard speaks of these fiords as "ocean avenues," and devotes pages 49-59 to their description, together with excellent pictures. See, also, pp. 11-12 and 89-90. Another good account of the fiords is given in *Glimpses of Three Coasts*, pp. 221-225 and 271-276. As pretty a description as any is found in the first four pages of *Feats on the Fiord*. This whole story is exquisitely rich in local color and the atmosphere of the fiords; and while it purports to be a love story, there is so little love in it, and so much of other matters, that it makes rarely good children's reading.

In *Land of the Midnight Sun* the author discusses the origin of the fiords (Vol. I, Chapter 18). In Chapters 20, 23, and 24, he describes several



Fig. 7.

"Norway has ten thousand islands."

fiords as to scenery and travel. In Vol. II, pp. 154 and 160-161, a fiord of the far north is described. Short descriptions of the fiords are given in

Carpenter's Europe, pp. 164-166, and Norway Nights and Russian Days, pp. 107-109. Footprints of Travel gives a short but good description, pp. 260 and 265-266. See, also, Modern Europe, pp. 93-94. The Tarr and McMurry Geography, Book III, p. 257, describes Norway's coast.

Fig. 8 shows how a fiord may be sketched upon the blackboard. At the same time refer to the fiords as seen in your map so that the pupils will associate the one form of illustration with the other. Make reference at every opportunity to your map. Make a practice of locating, in every case, the new places mentioned, such as Bergen, Hammerfest, etc.

We have thus given the children an intensive notion that the fiord is a characteristic feature of Norway. It is due to the topic, however, to seek out the essential features of Sweden, also. Here we have a country of lake and forest. "In making Sweden," the peasant says, "God forgot to separate the land from the water." About one tenth of all the area of Sweden is covered by beautiful lakes. In the picturesque phrasing of Stoddard (Sweden, p. 283), "The map of Sweden is as thickly dotted with lakes as the midnight sky with stars." One of these, Lake Wenern (Vanern), is so large that steamers sailing on it are often out of sight of land. In other words, it is an inland sea. Mr. Stoddard (Sweden, 292) gives a little description of a steamer-trip on this great lake. See, also, Land of the Midnight Sun, Vol. II, 351; and Nasmyth's Autobiography, 304.



Fig. 8.
A Fiord.

All of the lakes of Sweden are of clear, limpid water, which is fit to drink; and around them rise the great dark forests of aspen, birch, and mossy oak. Elsewhere the well-kept farms are spread, where the thrifty Swede has his fields of grain and garden truck. Read Modern Europe, p. 118.

In that beautiful land people travel about from town to town by boat, just as we do by rail, although, of course, they have railroads, too. Read about the Dalecarlians and their Lake Siljan, in Land of the Midnight Sun, Vol. II, 225, 229-230. The same book gives further accounts of the lakes on pp. 304 and 337. These chapters on Dalecarlia give an inclusive and altogether delightful idea of that low-lying Sweden between the highlands and the sea. Footprints of Travel, 235-236 and 343, gives some notes on these lakes. Land of the Midnight Sun, Vol. I, p. 13, describes Lake Malar, and p. 253 a Norwegian lake.

As a summary of this topic a little special study of your blackboard map is appropriate. Notice that all the long rivers cross Sweden and flow into the Baltic. Their sources are quite near the other coast. This shows that the axis, or high-line, of the peninsula is near the western side, thus dividing Scandinavia into a long, gradual eastern slope, and a short, abrupt western slope. Notice that nearly all of the real mountain land is in Norway, and nearly all of the more level region, suitable for farming, in Sweden. The interior of Norway, wildly beautiful as it is, is almost useless for making



Fig. 9.

In Dalecarlia.

one's living, so nearly the whole population live among the fiords along the coast, and depend upon the sea for their living. Sweden, on the contrary, has quite a large population living inland, where the nature of the country encourages farming, mining, and manufacturing.

Written review.

1. Describe the coast of Norway.
2. Describe a fiord.
3. Describe the surface of Sweden.

Things to remember—

1. That Norway is a wild mountain land, with thousands of rocky islands and deep ocean inlets along the coast.
- V. 2. That Sweden is lower and less rugged and that her lakes are "thick as stars in the midnight sky."

Test.

(Furnish each pupil with an outline map of Scandinavia.)

1. Shade the map so as to show highlands and lowlands.

2. Put in enough of the rivers to show which country has the longer slope.
3. Put in the principal lakes.
4. Print these words in place: Highlands. Lowlands. Fiords. Islands.

Cross-section test.

Draw a cross-section of Scandinavia from the ocean to the Baltic Sea.

II. 3. *It is a region of long and snow-bound winters and short but genial summers.*

These snow-bound conditions are found in their extreme in Lapland. There is room for a couple of chalk talks on this region, but the children should not leave the subject with the notion that Lapland conditions are typical of Scandinavia as a whole. An inclusive and fascinating account of

III. this overwhelming blanket of snow is given in *Land of the Long Night*, chapters four and six to ten. This book has the rare value of being readable by fourth-year children and yet maintaining an excellent literary tone. Mr. Du Chaillu speaks with the authority of personal narrative, and is therefore especially useful as teachers' reference.

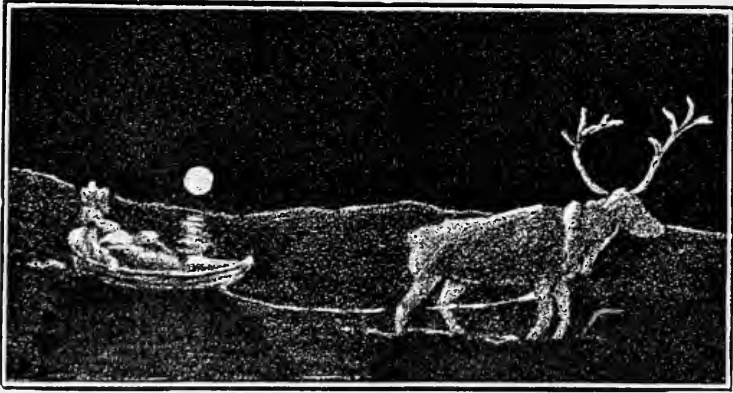


Fig. 10.

Paulus and His Reindeer.

The same author, in *Land of the Midnight Sun*, Vol. II, Chaps. 6 to 8, deals very circumstantially with this long Lapland winter. The style is so simple that the whole book may be read to children. For the teacher's purposes it is over-full of minute detail. *Land of Long Night* is the more available book of the two. Du Chaillu's account of Lapland is very serviceably abridged in *Johonnot's Geographical Reader*, 401-407. In the same book Bayard Taylor gives an amusing account of his attempts to drive a reindeer in the Lapland snows.

Mara Pratt's Northern Europe gives a short account of Lapland, pp. 73-77, readable by children. An appropriate blackboard sketch is shown in Fig. 10.

For an idea of winter in Sweden itself, Chapters 2 and 3, Land of the Long Night, are fine. The last half of Chapter 1 begins the account.



Fig. 11.

"They climbed out of the chimney."

The winters of the Norwegian side of the peninsula are much milder. It is wonderful to think that this far northern country, much of it within the Arctic Circle, enjoys a winter more comfortable than that in many parts of our own land. The fiord regions experience some ice and snow, but the fiords themselves never freeze, save in the south round about Christiania.

In other words, the fiord

towns, however Arctic their latitude, enjoy open harbors all winter. Even Hammerfest, the most northern town in the world, has an open harbor the year round. (Locate it, once more, upon your map.) Russia would give a good slice of her vast realm for such a climatic privilege. A good account of this difference is to be found in Chapter Eleven, Vol I, Land of the Midnight Sun; also, in Vol. II, Chapter Ten.

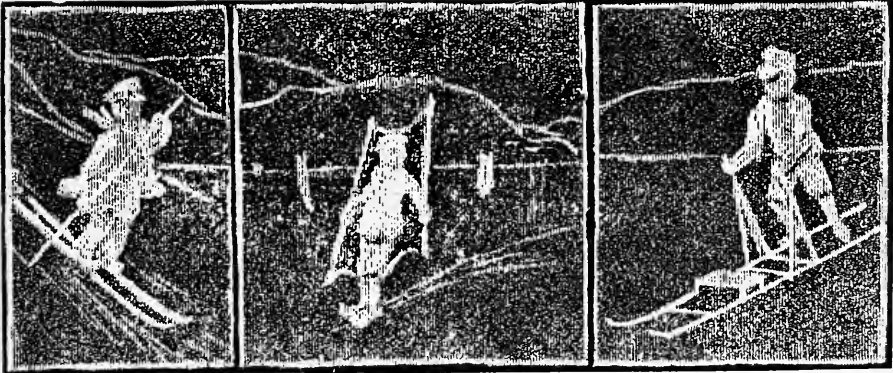


Fig. 12.

Norse Boys at Play.

A charming idea of Norway's short, genial summer is given in Footprints of Travel, 241-242 and 262-263. Stoddard's Norway, 113-114, gives an idea of the *intensity* of the summer life, when it does come. "The flowers do not close in sleep. All vegetation rushes to maturity." Johonnot's Reader, 193-197, gives a prose description, by Longfellow, of the novelty

and charm of the Norse seasons. There is material on this point in *Land of the Midnight Sun*, Vol. I, pp. 149-152.

A bright account of Norse boys' winter sports for children's reading is given in *The Wide World*, pp. 88-95; and a revision of the same in *By Land and Sea*, pp. 53-59. There is another in Chapter Eleven, *Children of the World*. There are a few paragraphs, also, in *Northern Europe* (Ginn), pp. 15-17. This material is an excellent basis for chalk-talks, being full of action, lending itself easily to blackboard sketching. Fig. 12 suggests some of these sketches.

Written review.

1. Compare the climate of Norway with that of Sweden.
2. Write what you know of each.

Things to remember—

- V. 1. The comparatively mild climate of Norway.
2. The deep, deep snows of Sweden.

II. 4. *It is the "land of the long night" and "the land of the mid-night sun."*

Scandinavia is a quaint and curious land in many respects, and in others a grand and noble and awe-inspiring land. But of all its odd features the midnight sun sets it apart as the strangest of civilized countries.

We cannot tell primary-grade children the causes of the long summer day and the long winter night, but we can describe vividly the phenomenon itself. Even as far south as Gothenburg one can read the newspaper out of doors at half-past ten of a summer evening; while in mid-winter one is plunged from the bright light of morning to the gloom of late afternoon within the space of a few hours.

In *Glimpses of Three Coasts*, pp. 225-226, the author tells of her remarkable sensations in that curious land of day-by-night. *Land of the Midnight Sun*, Vol. I, p. 2, describes the transition from the long summer day to the long winter night. Also, in Vol. II, pp. 1-2, the author continues the subject. Both of these accounts are reprinted in *Northern Europe* (Pratt), pp. 65-71. Pages 85-86 of the same book tell of the long day and night at Hammerfest. *Carpenter's Reader, Europe*, pp. 163-164 and 173-175, touches upon this subject.

Of course, farther north these unusual circumstances are even more noticeable. In the northward journey we come by and by to a latitude where there is no actual darkness in summer; where the darkest part of the night is a strong twilight, by which we can read. Under such conditions travelers do not know when to go to bed. For sleeping purposes, an artificial darkness has to be made by hanging coverings over the windows. Stoddard (Norway,

pp. 36-39) says that the words "early" and "late" grow to have no meaning, and he goes on to describe the curious sensations experienced by the traveler.

Yet farther north the summer night is even brighter. The sun sinks toward the horizon, but does not set. Instead it begins to rise again, thus making a complete circle in the sky. This is the Land of the Midnight Sun.

The little sketch, Fig 13, can be made very realistic by using colored chalk. "From early in May until August the stars take a vacation," say Ballou. See Footprints of Travel, pp. 254, 256, 261, 268, 269. Of course, it does not seem at all like night. There are no stars to be seen, and the moon, when it shows at all, is very pale. Travelers from other countries have to tell by their watches when it is time to "turn in."

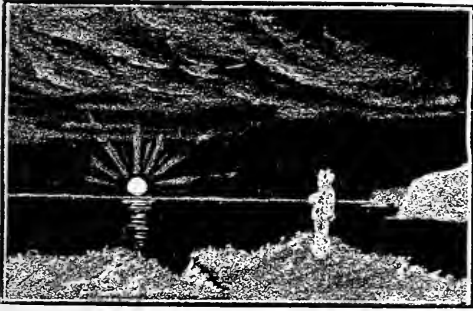


Fig. 13.

"This is the Land of the Midnight Sun."

Stoddard (Norway, pp. 117-119) tells how he saw the midnight sun from North Cape. The same experience is feelingly described in pages 163-168 of Norway Nights and Russian Days.



Fig. 14.

"They fish by the weird light of the aurora."

The continuous dark of winter is just as strange as the long light of summer. See, also, Modern Europe, pp. 109-111. The northern part of Scandinavia has one long night continuing many weeks. During that time the sun is always out of sight below the horizon. The stars and moon shine brightly all through this time. The people sleep when the clock says it is

sleeping-time, and rise in the darkness at the proper hour and continue their work. Land of the Midnight Sun, Vol. I, pp. 61 and 63-64, gives a particularly clear description.

The children will ask how the Scandinavians can see to do their work at such times. Well, they have the stars and a brilliant moon. But, more serviceable still, they have the northern lights, the aurora borealis, a great flaring illumination of the polar sky, which throws a dull sort of twilight over land and sea. Stoddard (Norway, pp. 106-107) tells how most of the Lofoden codfishing is done by the light of the aurora. The phenomenon itself is beautifully described by Du Chaillu in Land of the Midnight Sun, Vol. II, pp. 46-47 and 38; also in Frost's Modern Explorers, 115-116. The illustration, Fig. 14, is easy to draw, since the aurora may take almost any form, and is constantly waving and shooting and changing its appearance.

In Land of the Long Night, pp. 73-76, Du Chaillu tells stirringly of the departure of the sun and the coming of the long night. In pages 109-111 he describes the return of the sun. A vivid word-picture of the aurora is given on page 76. Page 92 shows a fine picture of the aurora, together with a Lapland landscape. Bayard Taylor, in Johonnot's Reader, pp. 105-107, gives a splendid description of the aurora, for the teacher's reading.

In Feats on the Fiord, pp. 200-202, Erica, while tending her cows, witnesses the phenomenon of the midnight sun. Chasing the Sun devotes pages 77-78, 83-85, 87, 112-114 to references to the long light and dark seasons of the Northland.

Written review.

1. Tell why Scandinavia is called "Land of the Midnight Sun."
2. Describe the summer season.
3. The winter season.
4. The aurora.

Things to remember—

1. A very long summer day—in the far north many weeks in length.
- V. 2. A winter night correspondingly long.
3. The aurora borealis gives a useful winter light.

- II. 5. *It is, save for a few cities toward the south, thinly populated by an industrious, frugal people, honest in their dealing and kindly of heart.*

In the northern region of the peninsula the long winter and lingering snow-banks forbid any farming of importance. Besides this, the northern part of Norway is too rocky for farming. Such people as live in those parts have little choice of pursuit. They must either live on reindeer, as the

Lapps do, or they must take to the coast fisheries for a living. But VIIb. in the south there is more good farming land in both countries, particularly in Sweden.

The people of the extreme north are described in *Land of the Midnight Sun*, Vol. II, pp. 143-146 and 152-164. The romantic lonesomeness of a

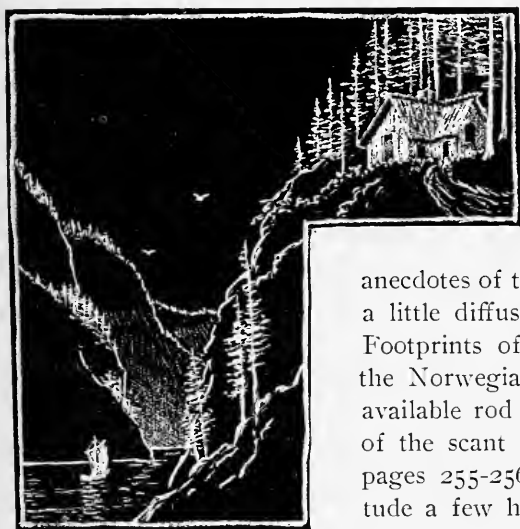


Fig. 15.

"The romantic lonesomeness."

of the Norwegian farmer's life. Carpenter's *Europe*, pp. 178-179, gives an idea of the economical methods which nature forces upon the Norwegian farmer.

At these lonely little farms, perched like eagles' nests high above the fiords, the farmer sometimes has to "tether his babies to the trees" to keep them from falling thousands of feet below. Read *Modern Europe*, pp. 93-97. Also Stoddard's *Norway*, pp. 70-73, and *Footprints of Travel*, 245-246. *Land of the Midnight Sun*, Vol. I, pp. 111-121, gives a substantial account of one of the northern farms.



Fig. 16.

The Lapp and His House of Sod.

On the Swedish side of the peninsula the northern regions are scantily peopled by wandering Lapps and Finns, who follow their reindeer over the

snow from one feeding ground to another. For accounts of these people there is no other book quite so useful as *Land of the Long Night*. Chapters 6 to 8 deal especially with the Finnish people as found in North Sweden. From Chapter 9 onward all portions of the book are available for giving the pupil clear ideas of the Lapps and their country. Chapter 18 is devoted to Lapp sports, and Chapters 32 and 33 deal with the Sea Lapps, who take part in Norway's fisheries. An abridged account of the Laplanders, by the same author, is given in *Johonnot's Geographical Reader*, pp. 401-407. In the same book Bayard Taylor gives an amusing story of his attempts to drive a reindeer in the Lapland snows.

There is a short but very descriptive account of the Lapps in *Footprints of Travel*, pp. 263-265, and a few paragraphs in *Modern Europe*, pp. 111-113. *Chasing the Sun* devotes pages 103-111 to an interesting account. There are short accounts in *Carpenter's Europe*, 166-171; *Northern Europe* (Pratt), 73-77; *Around the World* (Second Book), 113-125, and *Stoddard's Norway*, 109-112.

Of course, *the* description of the Lapps is found in *Land of the Midnight Sun*, Vol. I, pp. 122-148 and Vol. II, pp. 69-114 and 165-204. The teacher who is dissatisfied with the scrappy treatments of the geographical readers will take great comfort in these personal narratives of Mr. Du Chaillu.

We have now to establish the idea of a larger population in the south, and a greater civilization. Added to the better chances for farming and for living generally, there are great mines of iron and copper in the middle and southern parts, and great forests to furnish lumber. All of these conditions work together toward gathering the great bulk of the people into the southern part of the peninsula. Here are all the larger cities, such as Stockholm, Christiania, and Gothenburg. Short descriptions of the cities are to be found as follows:

Stockholm—*Footprints of Travel*, 270-273; *Modern Europe*, 115-116; *Land of the Midnight Sun*, Vol. I, 13-15; *Nasmyth's Autobiography*, 297-298; *Carpenter's Europe*, 182-184; *Norway Nights and Russian Days*, 190-201. *Stoddard* gives a very complete account in *Stoddard's Sweden*, 294-320.

Christiania—*Footprints of Travel*, 236-241; *Modern Europe*, 101-102; *Land of the Midnight Sun*, Vol. I, 297-302; Vol. II, 3; *Carpenter's Geographical Reader*, 180; *Norway Nights and Russian Days*, 28-52 (diffuse).

Bergen—*Footprints of Travel*, 247-250; *Modern Europe*, 104-105; *Land of the Midnight Sun*, Vol. I, 203-210; *Glimpses of Three Coasts*, 221-240; *Stoddard, Norway*, 82-88; *Northern Europe* (Pratt), 88-92.

Gothenburg—*Footprints of Travel*, 233-234; *Modern Europe*, 119; *Carpenter*, 180-181; *Land of the Midnight Sun*, Vol. I, 5.

Hammerfest—*Footprints of Travel*, 266-267; *Carpenter's Europe*, 170-171; *Land of the Midnight Sun*, Vol. I, 97-99; *Norway Nights and Russian Days*, 155-159.

Trondhjem—Footprints of Travel, 251-253; Carpenter's Europe, 166-168; Land of the Midnight Sun, Vol. I, 191-192; Norway Nights and Russian Days, 121-128.

Tromsø—Footprints of Travel, 261-263; Carpenter's Europe, 169-170; Land of the Midnight Sun, Vol. II, 113-114; Davis, 143-154.

The personal traits of the Scandinavians and their social customs, so different from ours, should be brought out. The people of both countries are noted for their hospitality toward each other and toward strangers. The traveler is always impressed by the kindly welcome he receives. Good character is a public ideal, practically worked out. Read what Du Chaillu says of his experiences, in Land of the Midnight Sun, Vol. I, pp. 114, 199-200, 245-246, 250, 289, 299-300, 401-402; Vol. II, pp. 17-18, 118, 228, 374-376, 394-398, 417. A pleasing idea of the pastoral repose of a Norwegian rural home is given in Vol. I, pp. 247-249. See, also, Feats on the Fiord, pp. 10-14, and Norway Nights and Russian Days, pp. 65-66 and 71.

A charming description, amounting to a tribute, of rural Sweden is to be found in *Johannot's Reader*, pp. 193-197. It is written by Longfellow. Read, also, *Footprints of Travel*, pp. 240-241 and 250-251, and *Norway Nights and Russian Days*, 120-121. Du Chaillu comments frequently on the conspicuous honesty and sobriety of the people. See *Land of the Midnight Sun*, Vol. II, pp. 39, 48, 167, 169, 202-203, 306, 122, 127, 216-218; also Vol. I, pp. 3, 41, 168 and 178, and *Stoddard's Sweden*, 289. James Nasmyth (*Autobiography*, pp. 304-305) pays a glowing tribute to these sterling qualities of the Swedes; and they seem to be exhibited in the northern peoples, the Lapps, as well. Read *Land of the Long Night*, 242-243. *Carpenter's Europe*, 179-180, gives an idea of the industry of the Scandinavians.

Around the World (second book), 79-101, describes, for third- and fourth-year children, their various industries.

In the Swedish household every one is cheerfully busy at some domestic task. Read *Land of the Midnight Sun*, Vol. II, p. 417; also, *Feats on the Fiord*, 42-44.

Another trait of these people is their strong belief in equality among men. In Norway they address even the king as "du" (thou). Employers,

also, are very courteous to their working-people. Servants are treated on a basis of equality. Read *Land of the Midnight Sun*, Vol. I, pp. 391-392;

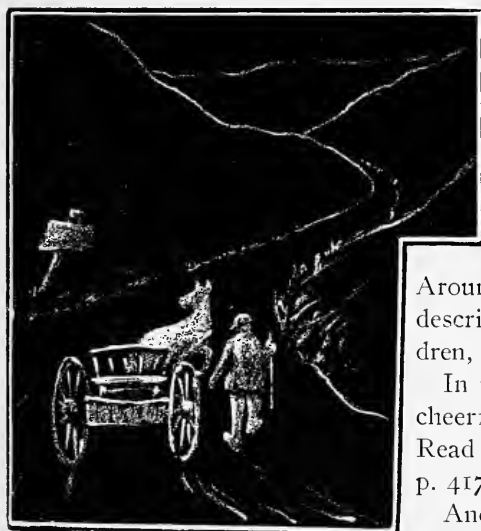


Fig. 17.

"Do not forget to rest your horses."

Vol. II, pp. 216-217, 397-398, 451-452. Throughout Feats on the Fiord the equality of servant and householder is apparent. See page 7 of that story.

One other trait noticeable to the traveler from possibly less kindly lands is the Scandinavian's habitual kindness to animals. Along the steep hill-roads of Norway are frequent signs reading "Do not forget to rest your horses." In both countries it is common to set out sheaves of grain for the song-birds. In that pleasant land the animals and birds seem to expect consideration. See *Footprints of Travel*, 244; *Modern Europe*, 103; *The Wide World*, 88; *Boy Travelers in North Europe*, 474-480; *Land of the Midnight Sun*, Vol. I, 58-59, and Vol. II, 6-7.

Around the World (second book) contains good reading for third and fourth grades, descriptive of Norse customs generally, and useful in the present topic. In *Carpenter's Europe*, 176-186, the author takes us upon a pleasant "carriage" trip, in which we meet the people and see their daily doings.

The children will enjoy reading about the Norse boys' games—skating, sailing on skates, etc. Accounts are to be found in *The Wide World*, 88-95; *By Land and Sea*, 53-59; *Northern Europe* (Ginn), 15-17, and *Children of the World*, Chapter Eleven. The merry festivities of the Christmas season are told about in *Land of the Midnight Sun*, Vol. II, pp. 4-9, and in *Children of the World*, pp. 154-155. Midsummer day is also a time of fun and frolic. See *Land of the Midnight Sun*, Vol. II, pp. 224-225.

A Swedish dinner is a curiosity throughout, beginning with a preliminary course of tid-bits, eaten at a sideboard, standing. Read *Land of the Midnight Sun*, Vol. I, pp. 6-8; also, *Stoddard's Sweden*, 289. Some of the curious foods of Norway are described in *Norway Nights and Russian Days*, 69-70, and in *Stoddard's Norway*, 30-34.

The Scandinavians used to be very superstitious. They still have a lingering belief in water-sprites, trolls, and other mysterious beings. These beliefs are brought out in the anecdotes on pages 8-9, 24-41 and 194-197 of *Feats on the Fiord*.

In the curious land of Sweden steamships climb hills and travel overland from one sea to the other. They climb upstairs some three hundred feet in the locks of the famous Gota Canal. Fig. 19 becomes a realistic illustration if you draw the boat first in one lock, then in the next, changing the water-level to permit the passage. This water-way is none of your American coal-barge routes, but a delightful inland passage, along which the happy tourist may dawdle for days on a comfortable passenger steamer and see the

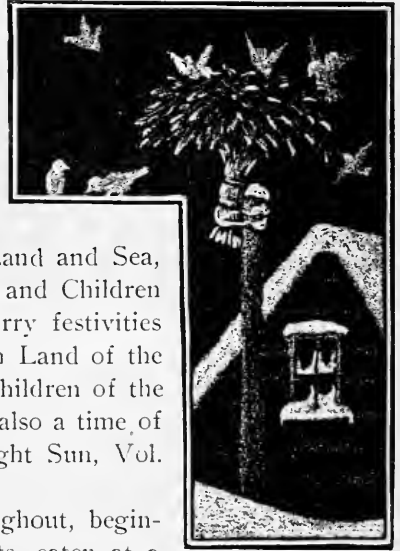


Fig. 18.
Christmas for
the Birds.

interior of Sweden in all its quaint beauty. Good accounts are found in Stoddard's Sweden, 283-293 (plentifully illustrated); Nasmyth's Autobiography, 300-308; Footprints of Travel, 234-235; Modern Europe, 117; Norway Nights and Russian Days, 181-182; Land of the Midnight Sun, Vol. II, 330-333 and 336-337. The first two mentioned have the best accounts.

In Norway the distinguishing features of travel are the stocky, willing little ponies, the carriole, with its girl driver, and the curious system of post-roads. Read Knox's Boy Travelers in Northern Europe, 474-480; Northern Europe (Ginn), 102-104; Stoddard's Norway, 26-28; Chasing the Sun, 58-64, 68-74, 99-100, 116, 119-120.

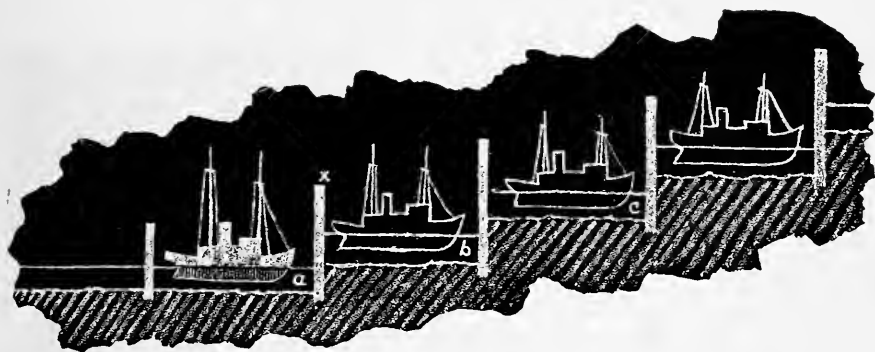


Fig. 19.

The Locks. (In the diagram the steamer is going "upstairs." The water in lock *a* will be raised to a level with that in *b*; then the gates, *x*, will be opened. The steamer will pass into *b*. The water in that lock will then be raised to the level of *c*, and the vessel will pass as before.)

In mountainous countries having cold winters and warm summers the farmers generally have two farms. One of these is the mountain pasture, to which they drive their cattle in the spring. The other is the lowland farm, to which the animals are driven back in the autumn. In Switzerland, Scandinavia, and the Sierra foothills of California the cattle and sheep perform this migration up and down the mountain every year. In Scandinavia the mountain dairy-farm is called the *saeter*. It is usually conducted by the girls of the family. They live up there alone all summer, making butter and cheese, and lead a romantic but very lonesome life, until it is time to go below for the season. Land of the Midnight Sun, Vol. I, 290-296, gives a good idea of a *saeter*; also pp. 280-281, 285-288 and 433; also in Vol. II, pp. 254, 256, 268 and 303-307. Modern Europe, 97, contains a short reference.

Written review.

1. Why is the population of Scandinavia mainly in the south?
2. Describe the character of the Scandinavians.
3. Write a little story that shows their character.

Things to remember—

- VIII. 1. That the north is a lonesome land and the south quite thickly populated.
2. That the people are notably kind, honest, and industrious.

Outline map test.*

1. Shade the map to suggest density of population—the more people the darker the shading.
2. Place dots locating the following places; make the dot large or small, according to the size of the place: Stockholm, Gothenburg, Christiania, Bergen, Trondhjem, Hammerfest.
3. Print the names in place.

- II. 6. *The land is not adapted to supporting a large population, so the Scandinavians are notably a sea-faring people.*

Only one fiftieth of Norway is arable land, and in Sweden less than one tenth. The rest is made up of steep mountain land, either bare or forested. These conditions drive the bulk of the Scandinavians either to their coast fisheries or to service on the high sea. Read Adams' Commercial Geography, pp. 258-260 and 262.

The Scandinavian sailors are known in every part of the world. If we should step aboard a ship in Bombay or any other distant port, we would probably find that some of the crew had been born on the crags over some Norwegian fiord, or perhaps in sight of some Swedish lake. Ship captains are always glad to get these Norse sailors. They are obedient and know how to do their work. Many of them get their training for the sea in the great fisheries on the coast of Norway. See remarks, p. 150 and top of p. 125, Vol. II, Land of the Midnight Sun; also Footprints of Travel. 245.

The Norwegians are not only sailors; they are captains and owners. Save Great Britain and the United States, little Norway has more freight vessels on the ocean than any other country in the world. Having little of her own to carry, these ships do an ocean express business for the other nations, just as an expressman in our own town will carry boxes and bales for other people and then go home with his earnings. Adams' Commercial Geography, pp. 262 and 158, gives an idea of the significance of this immense "carrying trade." Tarr and McMurry (third book), pp. 255-256, remarks in the same vein.

The Norway fisheries are described in detail in Land of the Midnight Sun, Vol. II. The famous Lofoden Island fisheries are dealt with in pages 115-134 and 145-146. Mr. Du Chaillu went with these Norse fishermen in their boats, and lived their life on land and sea. He helped catch codfish, and

* The teacher will find Fig. 1 a good map from which to trace her hectographed outlines.

tells just how it was done. He gives us an idea of the enormous number of codfish caught, and of the simple, homely life of the fishermen. In his company, we see how the cod-liver oil is made which is sold at the corner drug-store in our own town. *Around the World* (second book) has some pictures and reading for children on this subject, pp. 99-101.

Besides the cod-fishing, the Norwegians do a big business in herring, using great nets. Read pages 146-150, *Land of the Midnight Sun*, Vol. II. There are references to fishing elsewhere in the book, but those cited will be ample for the teacher's purpose. Of course the art of presenting the subject is to minimize the technical details and bring out the landscape, the picturesqueness of the fisher's life, and the fact that so large a part of the people are fishermen and sailors.

Land of the Long Night deals with the Norway fisheries in a form available for children's reading. Pages 190-211 give a close acquaintance with

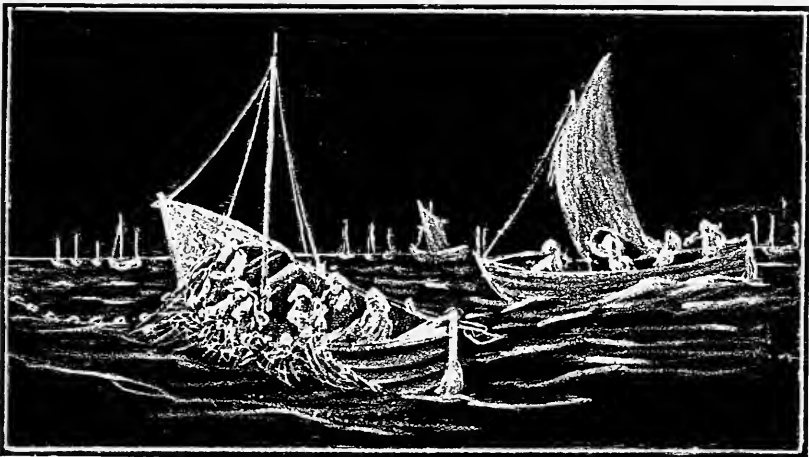


Fig. 20.

With the Norse Fishermen in Their Boats.

the serious, honest fiord folk, who look only upon the sea and figure only upon fish. Even the cows and sheep eat fish! (p. 237). See, also, *Feats on the Fiord*, p. 4.

Footprints of Travel, pp. 248-249, tells of the shark-fishing off the Norwegian coast. There is a reference to the Lofoden fishermen on pages 258-259. From Tromsø vessels start for the seal and walrus grounds. See page 263.

A general account of cod-fishing, herring-fishing, etc., applicable to the present study is to be found in *Information Reader No. 1*, pp. 120-126 and 148-152. The Lofoden cod-fisheries are told about in *Modern Europe*, 108-109. Stoddard (*Norway*, p. 85) speaks of Bergen as the chief distributing-point for Norway's fish; and on pages 106-107 tells how most of the

Lofoden cod-fishing is done by the light of the aurora. Glimpses of Three Coasts gives a chatty description of Bergen as a fish-market. (p. 235-236).

The Tarr-McMurry Geography. Book Third, pp. 254-257, gives a résumé of Norway's dependence upon the sea.

Written review.

1. Compare the occupations of the Norwegians with those of the Swedes.
2. Why do foreign vessels so often have Scandinavian sailors?

Definite points to be made—

1. That Norway has few farmers and many sailors, and why.
- VIII. 2. That Sweden has more farmers and a bigger population, and why.
3. That the merchant fleets of the world are manned largely by Scandinavian sailors.

Test.

1. Shade an outline map of Scandinavia to show the great fishing region.
2. Shade, also, the principal farming area.
3. Print these words in place: Fisheries. Farming.

II. 7. *In the world's markets this region is known for its coast fisheries, its lumber, and its iron.*

The preceding topic has given us a clear notion of the great fishing industry of the Norwegians. It remains to remind the children that the codfish are dried and the herrings smoked. In this form they are shipped all over the world, so that Boer soldiers in South Africa and wheat farmers in Dakota are likely to sit down to a breakfast of fish that

VIIa. were caught off the Lofoden Islands, perhaps as much as a year before, by a Norwegian fisherman. Give the class an idea of this great preparation of fish for export. See pages 118-119, Land of the Midnight Sun, Vol. II; also Glimpses of Three Coasts, 240. Around the World (second book), pp. 100-102, has a little children's reading.

Next to Norway's codfish we think of her lumber. How often we hear poetical allusions to the staunch ship with her mast of Norway pine. All through the fiord region, where the rocks are not too steep, they are covered with forests. And out of these the Scandinavian cuts the logs that go to many countries. Carpenter's Europe, pp. 176-177, muses a little on the



Fig. 21.

"The masts of great ships
are here."

wanderings of a Norway pine. Modern Europe, pp. 99-100, tells about these fiord lumbermen. "Wherever there is a platform beside the cataract where the sawyer may plant his mill and make a path from it to join some great road, there is a human habitation and the sounds that belong to it."—Feats on the Fiord, p. 3.

Sweden is also a great lumber country. Indeed, lumber is her largest item of export. See Adams' Commercial Geography, p. 260. McMurry (Book Third, p. 258) says that nearly one half of Sweden is covered with forest.

We are in danger of giving the pupils the notion that all Scandinavians are fishermen and none are farmers. As a matter of fact, the agricultural population is the larger of the two. The Swedish farmers raise a great deal of the food that is eaten in Sweden. But we think of a country not by what it raises and eats, but by what it raises and sells; and Scandinavia has no food product to sell except fish.

The iron of Scandinavia is famous in other countries for its fine quality. England and Germany buy a great deal of it. Much of the "Sheffield steel" that we prize so highly in our knives and other tools is originally dug out of the ground in Sweden, and sent to Sheffield, England, to be made up. The "Norway iron," so famous among blacksmiths, is really Swedish iron.

Nasmyth's description of the Swedish iron mines at Dannemora (Autobiography, pp. 300-302) is worth the teacher's reading for her own sake. The "unfathomable depths" of this vast hole in the ground are anything but prosaic in the reading. There is also a full-page illustration worthy of Doré. There are shorter references in Footprints of Travel, 236, and Modern Europe, 114.

Lest the children have by this time the fixed notion that Scandinavia is made up entirely of fiord and snowbank, a little reference to Swedish manufacturing may be made, as found in Land of the Midnight Sun, Vol. II, pp. 372 et seq. The busy cities of workmen, such as Norrköping, should be pictured, and visited in imagination. An important preliminary is to locate the place on the map always.

Written review.

1. Name the two principal exports of Norway.
2. Name the two principal exports of Sweden.
3. Tell how the codfish are prepared for export.
4. State some use to which the Norway pine is put.
5. Tell what you have learned about "Sheffield" steel.

Things to remember—

- VIII.** 1. Norway exports chiefly codfish and the famous Norway pine.
2. Sweden exports chiefly lumber and a high grade of iron.

PHYSICAL GEOGRAPHY OF SCANDINAVIA.

1. The fiords are thought to be "drowned" valleys, cut originally by glaciers and rivers, and afterward sunk below sea-level. 2. The mild climate of Norway is now ascribed to the prevailing sea winds, and not to the Gulf Stream. 3. The long winter night, the long summer day, and the midnight sun result from the earth's annual revolution and the inclination of its axis. 4. Scandinavia's long winter and short summer are due to the low altitudes of the sun. 5. The aurora borealis is believed to be the light of a great magnetic disturbance over the magnetic pole.

1. The fiords are thought to be "drowned" valleys, cut originally by glaciers and rivers, and afterward sunk below sea-level.

In many coasts of the world there are long, deep bays, such as in Norway are called fiords. Physiographers take these fiords as evidence that the land in those parts has gradually sunk, allowing the sea to creep into the mouthward parts of the river valleys. New York Bay is really a fiord in this sense, and divers who explore its bottom find the old river channel reaching quite out into the sea. Wherever the map shows a ragged, deeply cut coast, such

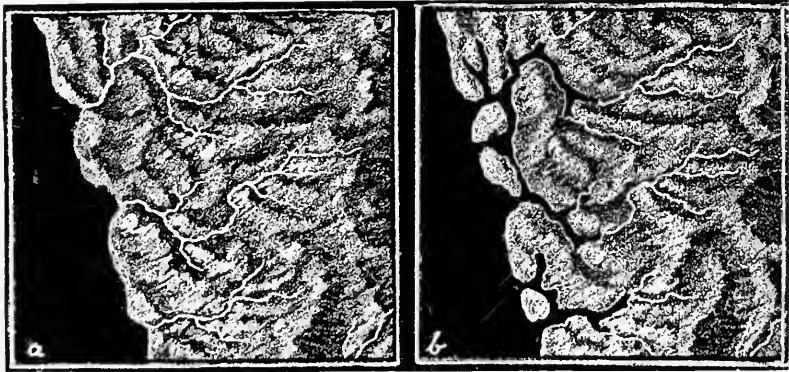


Fig. 22.

The Making of a Fiord. (a. The river valleys before the region has sunk. b. The flooded valleys, or fiords, after the sinking.)

as that of Maine, Alaska, Chile, Scotland, or Norway, we may be fairly certain that the long arms of ocean water are fiords and that the land has sunk and "drowned" its rivers in the sea.

In the case of Norway, the fiords are so very deep that nothing but glaciers could have cut them out. It is believed that the Scandinavian plateau was once much higher than now, and covered by a tremendous ice-cap. Out of this ice-mass the glaciers crept, grinding out deep valleys as they pushed toward the sea. After the glaciers disappeared these valleys were occupied by rivers, which wore them down still further. Now the land sank slowly

into the sea. The sinking amounted to several thousand feet, and progressed so slowly that it took many thousand years. As the sinking went on the sea filled the sunken valleys and made fiords. The teacher looking the matter up for the first time will be perplexed to read that Norway is rising instead of sinking. She has only to remember, however, that this is a later movement. Throughout the earth's surface this slow upheaval and subsidence is forever going on, sometimes the one, sometimes the other.

The explanation of the fiord, or drowned valley, is given in any geology or physical geography, among them the following:

Davis's Physical Geography, pp. 196, 345, 358-359, 368-369.

Brigham's Text-Book of Geology, pp. 166-167. 277.

LeConte's Compend of Geology, pp. 38, 155-157.

Tarr and McMurry's Geography, Third Book, p. 257.

Dryer's Lessons in Physical Geography, pp. 133-134, 228-229.

Land of the Midnight Sun, Vol. I, devotes pages 219-226 and 316-317 to a consideration of this sinking and rising of Scandinavia, and to the agency of the glaciers in fiord cutting.

2. *The mild climate of Norway is now ascribed to the prevailing sea winds, and not to the Gulf Stream.*

The explanation commonly given is that the Gulf Stream sweeps northward from the tropics with its flood of warm water, and lends its mild temperatures to the coasts of north Europe, particularly Norway, and including Great Britain. While the climatic facts beautifully justify this theory, our meteorologists lately are telling us that it is all just a pretty fancy of Maury's. They say that the Gulf Stream disperses itself before it reaches such high latitudes. They say, also, that it is the prevailing ocean winds that soften Norway's climate. They remind us that any region whose prevailing winds are from the sea will enjoy the mild climate, summer and winter, of the sea itself. The scientists of to-day speak of "the Gulf Stream *myth*" (so far as it applies to the climate of Europe), and charge it to the account of Maury, who first advanced the theory.

One piece of evidence in favor of the Gulf Stream idea, as affecting Norway, seems as yet to have been overlooked. It is that the harbor of Hammerfest remains open throughout the winter, while that of Christiania, a thousand miles nearer the equator, is frozen for three months in the year. This fact appears the more troublesome since the two places are of such geographical location as to give full color to the Gulf Stream explanation; while, if the latter is to be superseded, the prevailing winds should bring to Christiania practically the same soft winter that is enjoyed by Hammerfest, plus the benefit of a more southerly location. This kink is doubtless easily explained, however, by some local condition.

As to what we geography teachers shall do in the matter, there seems to be but one course open. That is to explain carefully the Gulf Stream idea, because it has grown to be an item of universal belief, and therefore essential to our teaching; but at the same time to see that the children regard it as a brilliant notion of other days, disproven in our own. And, finally, we must supplant it with the simple conception of a sea-wind bestowing the soft climate of the sea upon the favored land over which it blows.

The Gulf Stream explanation of Norway's climate is to be found specifically stated in *Land of the Midnight Sun*, Vol. II, chapter 10. Read, also, Bayard Taylor, in *Johannot's Reader*, pp. 330-331; Carpenter's *Europe*, p. 168; *Land of the Long Night*, pp. 188-189 and 228; *Footprints of Travel*, pp. 238 and 266-267; Stoddard's *Norway*, pp. 11 and 112-113. Of course, the standard

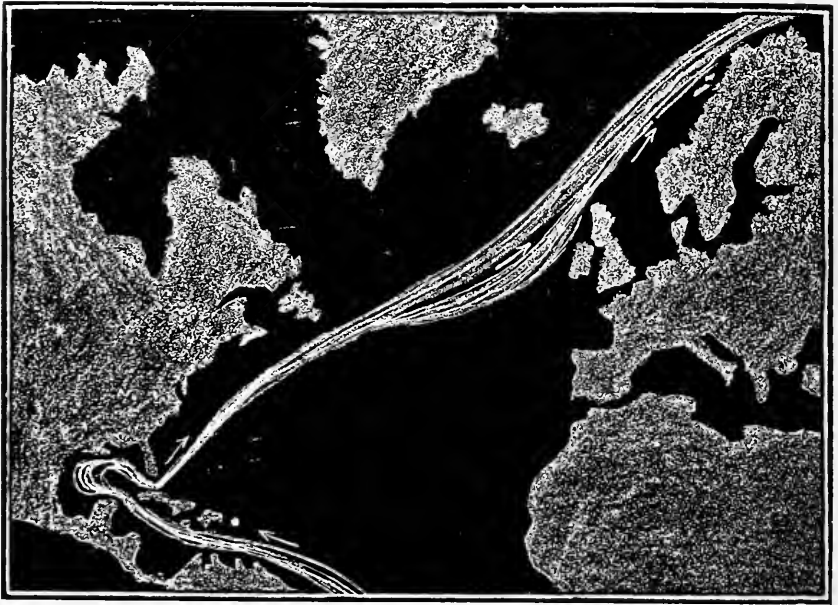


Fig. 23.

The Gulf Stream Idea, so far as It Concerned Norway.

presentation of this theory is to be found in *The Geography of the Sea*, by Maury, the father of the idea.

The refutation of the Gulf Stream theory, ascribing these climatic effects wholly to the agency of prevailing sea-winds, is convincingly given in "The Gulf Stream Myth," *Scribner's*, Vol. 31 (1902), pp. 689 et seq., and *Bulletin American Geographical Society* (July, 1901), p. 259, "Certain Persistent Errors in Geography."

3. *The long winter night, the long summer day, and the midnight sun result from the earth's annual revolution and the inclination of its axis.*

The present purpose is not to teach mathematical geography inclusively, but to have recourse to so much of it as will explain Norway's midnight sun and her curious day and night.

During summer in the northern hemisphere the earth's axis inclines toward the sun. During the winter it inclines away. Look at the summer position, Fig. 24. The axis leans toward the sun. The north pole is well out in the hemisphere of daylight. Now let us imagine the earth rotating on its axis. Each rotation will make a day, according to the calendar. Yet the pole will remain out in the sunlit hemisphere. A person standing at the pole would see the sun all the time. There would be no darkness.

Now notice that the same will be true on that day for the whole arctic region. The sun's rays pass beyond the pole and strike as far as the Arctic

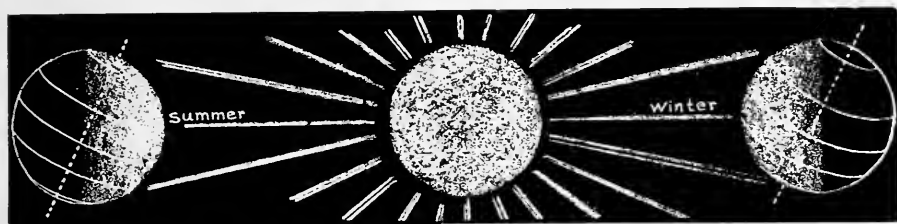


Fig. 24.

The Long Winter Night and the Long Summer Day.

Circle on the other side. In other words, when the earth is in that part of its orbit, the whole region bounded by the Arctic Circle has the sun all night. Seen from a town on the Arctic Circle on that day, the sun, instead of setting, makes a complete circle in the sky.

Of course, the longest period of continuous sunshine is at the pole itself. If any one were there to see, the sun would be in sight for six months and below the horizon the other six. These periods shorten rapidly as we leave the pole. At Hammerfest the sun is continuously in sight for two and a half months; but at the Arctic Circle the longest period of actual sunshine is twenty-four hours. This happens on midsummer day and is the most southerly instance of Norway's midnight sun. In Volume I, *Land of the Midnight Sun*, p. 107, there is a table giving the duration of the long day and the long night at different arctic latitudes in Norway.

Proceeding south from the Arctic Circle, day and night grow more nearly of the same length. But even in our own latitude we have a long day and short night in summer and the reverse in winter. At the equator day and night are always equal.

We can estimate the day's length in any latitude by studying Fig. 25, which shows the axis inclined toward the sun on midsummer day. Any parallel

of latitude that is entirely within the lighted hemisphere will have the sun for at least all of one rotation. If the parallel slightly enters the dark hemisphere, that latitude will have a short night—a few minutes or hours, according to the proportion of the parallel that lies in the dark. Notice that, as we proceed southward, more and more of the parallel lies in the dark half of the earth until at the equator just half the day's rotation lies in the light and the other half in the dark.

The teacher will be greatly aided in the presentation of this topic by a careful reading of Jackson's *Astronomical Geography*, pp. 32-64. She will find the little book not as formidable as its name. The essential understanding of the earth-and-sun relation is nowhere else so easily gained.

The Tarr and McMurry *Geography* (third book), pp. 8-16, gives a serviceable explanation of the seasons, and the diagrams are particularly valuable. Du Chaillu in Volume I, *Land of the Midnight Sun*, pp. 61-63, explains the long day and night in Norway. His table on page 107 is useful in connection.

Turning now to the winter position (Fig. 24), we find the earth's axis inclined away from the sun. Everything within the Arctic Circle is in the hemisphere of darkness. A person living on the Arctic Circle will catch just a glimpse of the sun at noonday, as the earth's rotation brings him to the point nearest the sun. He will have only a few moments of day, and about twenty-four hours of night. People farther north, or within the Arctic Circle, will not see the sun even at noon. They will be in the dark during the whole rotation. Journeying south from the polar regions, we shall find the difference in length of day and night growing less, until at the equator they become equal, as before.

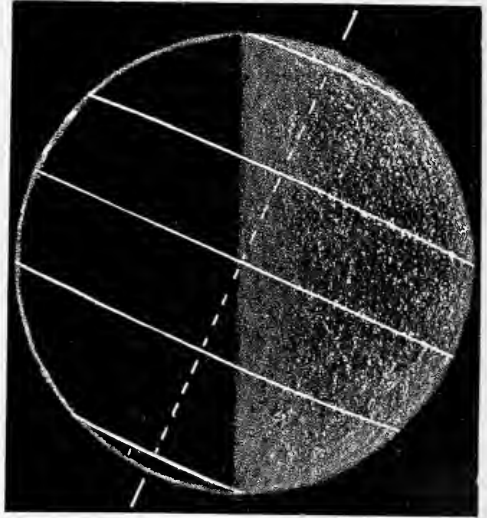


Fig. 25.

The proportion of the parallel lying within the lighted hemisphere determines the length of day at that latitude.

4. *Scandinavia's long winter and short summer are due to the low latitudes of the sun.*

We know that in summer the sun is high in the sky, and in winter it is lower. If the children have never noticed this, they should be led to observe how the noonday shadows shorten as the summer comes and how they

lengthen as the winter draws on. Some schools use a shadow-stick for this purpose, but fence-posts, trees, or the pupils themselves answer the purpose just as well. The shadow-stick is made of a short and a longer piece of thin wood (cigar-box wood will do) nailed together at right angles, as in Fig. 26. If this contrivance is placed with its "back" toward the sun, the shadow of the upright will be thrown upon the horizontal piece; and, of course, in a series of trials through the season this shadow will be observed to lengthen or shorten according to the altitude of the sun. If now a strip of paper be pasted upon the base-piece, the shadow-lengths may be marked, and their respective dates written against the marks; and the year's record is easily made the basis of a series of effective lessons upon mathematical geography.

We find, then, that in a general way our hot season is the period when the noonday sun is high in the heavens, and our winter is the season when the sun, even at noontime, is low toward the south. The hottest countries of the earth have the sun directly over head, which we never do; but in arctic

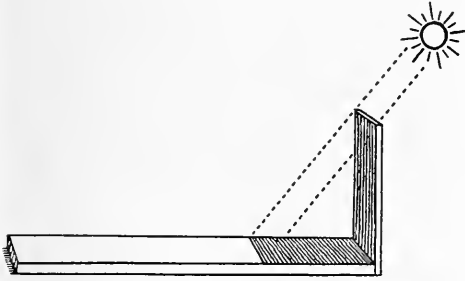


Fig. 26.

The Shadow-Stick.

latitudes even the midsummer sun is very low in the southern sky, while the winter sun is altogether out of sight. It is plain, then, that the tropics, over which the sun stays all the time, will have a perpetual summer; and the polar regions, where the sun merely hangs low for a while in the far southern sky, will have a nearly continuous winter.

And we must remember here that Norway thanks her ocean

air, rather than direct sunshine, for her mild climate. Other lands in Norway's latitude, which have not the benefit of the soft ocean airs, have a much longer and colder winter.

A little further study of Fig. 24 will be of service here. Remember that it is the vertical rays that count for the hottest and longest summers; and the vertical rays are those only which strike toward the center of the earth. Notice, in Fig. 24, the vertical ray strikes at Cancer on our midsummer day and at Capricorn in our midwinter. No latitudes nearer the poles ever get the vertical rays. Notice that in the polar latitudes the sun's rays strike the earth in a very oblique direction, and therefore give little heat. The fact that the arctic regions have any summer at all is largely due to the sun shining day and night when summer does come.

In this connection pages 25-28 of Jackson's *Astronomical Geography* should be carefully studied by the teacher.

5. *The aurora borealis is believed to be the light of a great electric VII. disturbance over the magnetic pole.*

Du Chaillu's description (Land of the Midnight Sun, Vol. II, pp. 46-47) makes reference to the electrical cause of the aurora. The matter is further explained in Mill's Realm of Nature, p. 116.

VI. Use the text-book as a final review.

BOOKS MENTIONED.

(The first group are children's books, well adapted to the fourth grade and of some use in the third. Of course, the information contained is available in upper grades as well. The second group are for teachers' reference.)

GROUP I.

The Wide World. Ginn & Co.
 By Land and Sea. Youths' Companion Series.
 Northern Europe. Ginn & Co.
 Northern Europe. Mara Pratt. Educational Pub. Co.
 Carpenter's Geographical Reader—Europe. American Book Co.
 Feats on the Fiord. Martineau. Dent & Co.
 Around the World. Carroll. The Morse Co.
 Land of the Long Night. Du Chaillu. Scribners'.
 Boy Travelers of Northern Europe. Knox. Harpers'.
 Viking Tales. Jennie Hall. Rand McNally Co.
 From the Old World to the New. Dickson. Macmillan.
 Children of the World. Educational Pub. Co.
 Children's Stories of American History. Wright. Scribners'.
 Modern Explorers. Frost. Cassell & Co.

GROUP II.

Land of the Midnight Sun (2 vols). Du Chaillu. Harpers'.
 Glimpses of Three Coasts. Jackson. Roberts Bros.
 John L. Stoddard's Lectures, Vol. I (Norway, etc.), Vol. II (Sweden, etc.). Balch Bros.
 Autobiography. James Nasmyth. Harpers'.
 Footprints of Travel. Ballou. Ginn & Co.
 Modern Europe. Coe. Silver, Burdett & Co.
 Geographical Reader. Jhonnot. American Book Co.
 Chasing the Sun. Ballantyne.
 Commercial Geography. Adams. Appleton.

Norway Nights and Russian Days. Davis. Fords, Howard & Hulbert.
Ten Boys. Jane Andrews. Ginn & Co.
Geography of the Sea. Maury.
Discovery of America, Vol. I. Fiske. Houghton, Mifflin & Co.
Physical Geography. Davis. Ginn & Co.
Lessons in Physical Geography. Dryer. American Book Co.
Compend of Geology. Le Conte. American Book Co.
Text-Book in Geology. Brigham. Appleton.
Astronomical Geography. Jackson. Heath.
Tarr and McMurry Geography (third book). Macmillan.
Realm of Nature. Mill. Scribners'.

SAN FRANCISCO STATE NORMAL SCHOOL.

BULLETIN NO. 6

The Method of Teaching Geography

BY TOPICAL READINGS

Illustrated in the Treatment of China

By FRANK F. BUNKER

Supervisor of Geography Teaching

PUBLISHED BY THE GRADUATE ASSOCIATION OF THE
SAN FRANCISCO STATE NORMAL SCHOOL.

October 1903.

ANNOUNCEMENT.

This Bulletin is published and distributed by the Graduates of the San Francisco State Normal School among their fellow teachers of the State, free of charge, upon receipt of postage for mailing (4 cents). To persons residing outside the State, the price is 25 cents.

Other Bulletins which have been issued upon the same conditions, are as follows:

Bulletin No. 1: "The Teaching of Number in the Primary Grades," by Frank F. Bunker; postage 2 cents. (First edition now exhausted).

Bulletin No. 2: "The Essentials of Geography in the Primary Grades," by Frank F. Bunker and Effie B. McFadden; postage 6 cents. (First edition now exhausted).

Bulletin No. 3: "The Teaching of Language in the Primary Grades," by Alma Patterson; postage 2 cents. (First edition now exhausted).

Special notice regarding Bulletins Nos. 1, 2 and 3: We originally printed 2000 copies of each of these Bulletins and in the case of No. 2, the orders which we cannot fill, now amount to 1000 and over. We would issue a second edition of Bulletin No. 2, but we have no funds with which to do this. Our Alumni Association which has undertaken financially to assist in the free publication and distribution of our Bulletin series is not able to issue a second edition as all its available funds will be used in the publication of two new Bulletins upon geography, the manuscripts of which are now almost ready for the printer. It occurs to us that a sufficient number of teachers and schools throughout the State want these Bulletins seriously enough to pay the cost of printing a second edition. The cost of republishing the Bulletins, upon a basis of an edition of 2000 each, will be 15 cents each for Bulletin 2, and 10 cents each for Bulletins 1 and 3. This, of course, is exclusive of postage. The Graduate Association will receive and file orders (it will not be necessary to send the money until we send notification that the Bulletins are ready) for any of the exhausted Bulletins at these cost prices, and when the number thus ordered amounts to enough to justify publishing a new edition we will do so and fill the orders.

Bulletin No. 4 (to be issued October 15, 1903) contains the courses of study and system for the Honorary Diploma in recognition of marked efficiency in teaching. For the present this course and diploma is reserved exclusively for graduates of the San Francisco State Normal School. In time, however, it will probably be thrown open to any earnest, efficient teacher who desires self improvement and professional advancement. For those who desire to be informed concerning this course and conditions, Bulletin 4 will be mailed upon receipt of mailing postage of 2 cents.

Bulletin No. 5 (ready November 1, 1903). The Method of Teaching Geography by the "Chalk Lesson;" illustrated by the treatment of Scandinavia; by Walter J. Kenyon. (Postage 2 cents).

Bulletin No. 6 (ready November 1, 1903). The Method of Teaching Geography by Topical Readings; illustrated in the treatment of China; by Frank F. Bunker. Other Bulletins in course of construction are as follows:

The Teaching of Arithmetic in the First and Second Grades, by David R. Jones.

The Teaching of Composition and Nature Study; Effie B. McFadden.

The Teaching of Reading in the First and Second Grades, by Alma Patterson.

Methods of School Management and Discipline, by F. A. Wagner.

INTRODUCTION.

This Bulletin, the details of which, have grown out of the work of our student teachers in the Training School, is issued as a supplement to the San Francisco State Normal School Bulletin No. 2, "The Essentials of Geography in the Primary and Grammar Grades." Bulletin No. 2 deals with the problem of what is worth while in geography teaching. It points out that the popular mind, as contrasted with the specialist in geography, has certain facts and feelings associated with each of the several areas or geographical units of the earth's surface, and that these facts and feelings are the characteristics around which, and for the establishment of which, all the work of geography instruction should center. It points out, in addition, that the general method of presenting these characteristics lies in the organized reading and class discussion of traveler's tales, of stories of adventure, of interesting descriptions, and of fiction whose setting and atmosphere are true to geographic fact. The space limitations of Bulletin No. 2 forbade anything further than a discussion of the problem; the general method of handling the various aspects, formal, descriptive, and physical; and an enumeration of what the writers consider the characteristics of the several geographical areas. The purpose of this Bulletin is to take one of these areas, the region of China, and show, by way of illustration, how the mass of good supplementary reading, which the teacher can have for the taking, can be organized into lesson units and so presented to children as to secure effectively those facts and feelings which seem to us essential.

The method of supplementary reading upon which our course in geography is built is by no means a new method. It has been tried by many teachers in a more or less half-hearted and halting way. All too frequently they have experienced difficulty in checking up results and in determining what their children have accomplished. In consequence of this difficulty many have become discouraged with the whole idea, and have fallen back more heavily than ever on the text for the material and method of presentation. The reason for these failures, I am positive, lies chiefly in the fact that the reading which the teachers have required of their children has been done in a haphazard and desultory fashion. The teacher makes the mistake of following the lead of her material instead of making the material subservient to her own plan and organized scheme of lessons. She is, therefore, led hither and yon, back and forth, as chance and not intelligence dictates. Today her children read an article on tea raising in China. Tomorrow one on rice culture in North Carolina, and the third day, perhaps, an account of an adventure with a polar bear in Alaska. A series of pictures pass rapidly before the child's mind, but too rapidly and in too disorganized a shape to leave anything but the vaguest impressions. This kaleidoscopic method of handling supplementary reading not only renders the teacher's attempt to

check results ineffective, but it leads to mental distraction on the child's part which ultimately works out into careless and irresponsible habits of reading and study.

To secure effective results by this method, the teacher herself, must, first of all, work over carefully all the material at her command which bears directly on the region to be presented. She must then decide what details in her material will best illustrate or develop the characteristics she wants the children to know. Lastly, these details — stories, pictures, descriptions, anecdotes — must be organized into lesson units, each lesson unit having as its purpose the presentation of some one essential characteristic. In the class discussion of the references, which in accordance with her plan the teacher gives to her children, the teacher should confine the class to the points which bear directly on the characteristic to be established and thus avoid the aimless, discursive, desultory conversation which too frequently creeps into the recitations of even the best teachers.

In the course of the presentation of a given lesson unit the teacher will find that there are certain facts which have value in themselves apart from their bearing in developing the thing which is characteristic. In other words, for one reason or another, in the judgment of the teacher, there are certain facts which in themselves and of themselves are intrinsically valuable. These facts should be gathered up at the close of the presentation of the lesson unit and drilled upon from time to time in order to insure their permanent retention.

It should be said that neither Bulletin No. 2 nor this one on China attempts to supplant a text book. While we have had much to say in condemnation of the slavish use of the text, yet we do not wish to be understood as wishing to prohibit its use altogether. A text book in geography, by reason of necessary space limitations, can never be but little more than a compendium of facts and general notions which the writers consider essential. It is a mistake fatal to good teaching to permit it to determine the matter and the method of presentation. Its true function lies, in supplying on the one hand, the pupils' need for a handy reference book, and on the other hand, the teacher's need for a succinct statement of essential facts and general notions. The better the qualities, then, which fit it for such a compendium, the more valuable it will be as a text. There is in our school work a place for such a geography text, but it is, except in its aspect as a reference book, *after* there has been some such preparation through reading and class discussion as we suggest in the pages which follow.

Messrs. Charles and Frank McMurry in "The Method of the Recitation," a book which every teacher should not fail to study carefully, discusses this point very sensibly. They say in part: "We do not advocate using the book (text) entirely or giving it up entirely; on the contrary, the text book and the developing method can be employed together and alternate with each other as occasion demands. School instruction should certainly culminate in the ability to use books properly, but that does not necessitate abundant use of text books, especially early in school life, or even exclusively at any time."

Bulletin No. 2 points out that the proper pedagogical order demands that certain formal map features, employed in the descriptive work, should be presented first in point of time ; that this work be followed up by descriptions dealing with the chief characteristics ; and that last of all in this sequence comes the explanation of the phenomena which the children are familiar with through their descriptive work. This is the sequence which this Bulletin seeks to illustrate and which we deem essential to effective work in the teaching of geography in the elementary grades.

Following this introduction will be found a general schema for preparing lessons, identical in form to this, to be given in presenting other geographical areas. The references to the reading necessary to prepare such lessons will be found in Bulletin No. 2. Each lesson should be written by the teacher in a note book, following the same general plan of this Bulletin. Then when she again teaches the lesson to another class, she can refresh her memory by re-reading her notes. For teachers who are candidates for the Honorary Diploma of Marked Efficiency described in Bulletin No. 4, these note books constitute an essential feature of the course. It will be of great assistance to teachers in working up lessons in accordance with this method, to study carefully McMurry's "Method of the Recitation," and to make themselves familiar with all he has to say about the preparation of the apperceptive mass, the development method, lesson units, and the method of types.

We would lay especial emphasis on the provision made for thorough reviews and for drills on essential facts. This matter of drill we feel cannot be slighted without a grave lessening of the effectiveness of the work. Sufficient drill should be given and reviews so frequently made as to render the facts of common information indelibly impressed on the child's memory.

FRANK F. BUNKER.

October, 1903.

* General Schema for the Treatment of Lesson Units.

I. Succinct statement, at the beginning of the treatment of each geographical area, of the goals or lesson unities of this area. (For form see Bulletins No. 5 and 6.)

II. Repetition of each of these goals or lesson unities separately. (A "lesson unity" may, of course, include several lessons.)

III. Enlargement of this statement, in style to correspond to its inherent quality, aiming not to become a source of information, but to give tasty suggestions which will lead to thorough reading by the teacher of the references cited; and also to touch upon all essential fields of data obtainable in these references necessary to develop the goal or lesson unity stated. Specific references should be interlarded in the body of this section.

IV. Detailed references of children's and teacher's reading, annotated to show the features which illustrate the stated goal or lesson unity.

V. (For lesson unities which have any informational character.) Statement in concise form of the information to be remembered or memorized. A test of such information should be whether or not this knowledge is the common possession of the average person of intelligence.

VI. Use text as final review.

VII. (a) (For those lesson unities stating commercial or industrial features.) After the descriptive treatment including the feeling elements have thus been presented, in I, II, III and IV, proceed to explain each specific feature of essential importance in the given area, tracing its development out of physical causes and conditions (the influence of erosion, valley formation, winds, rainfall, ocean currents, etc., will here be introduced, each treated with specific reference to the local conditions, all important physical features will thus be covered, *after the descriptive treatment* has aroused an interest in them, and each treatment will be specific and not general, enabling pupils to think clearly in mental images. Physical experiments, board drawings, apparatus, etc., are here introduced); also state and illustrate specifically, each trade center of each industry in a given area, tracing (when these are matters of common knowledge) the means of transportation of products, the chief foreign markets and the chief products not only of importation but of exportation as well.

(b) (For social, historical, scenic or other lesson unities). After the descriptive treatment, including the feeling elements, have thus been presented in I, II, III and IV, proceed to trace the character of the people, or other feature under consideration, to their physical, industrial, historical or other natural causes.

VIII. (For lesson unities in which either (a) or (b) of VII have any informational character). Statements in concise form of all knowledge, belonging to common currency, to be remembered by pupils.

General—For every paragraph or section of treatment throughout; the pedagogical purpose of the treatment or the method of presentation should be distinctly stated, even at the risk of repetition. This will constitute a body of practical pedagogy.

* From San Francisco State Normal School Bulletin No. 4.



FIG. 1. SHOWING THE CHINESE EMPIRE.

1. China proper. 2. Manchuria. 3. Mongolia. 4. Chinese Turkestan. 5. Tibet.

A Study of China Proper in its Formal Aspect.

Before taking up the cultural work outlined further along, the children should fix the following map features :

1. Those enumerated in Bulletin No. 2, p. 17, 19, 20, and 22, under the head "Asia."
2. Gain the ability to sketch the continent of Eurasia from memory fairly well in one minute of time.
3. Ability, (1) to block in, in an outline map of Eurasia, China proper, Manchuria, Mongolia, Chinese Turkestan, and Tibet. (2) To locate in an outline map the deserts of Gobi and Tibet; the rivers Amur, Hoang-ho, and Yangtse-kiang; the great wall and the grand canal; and the cities of Canton, Shanghai, Hongkong, and Peking.

For methods useful in teaching the above map facts see the San Francisco State Normal School Bulletin No. 2, Chapter III.

A Study of China Proper in its Descriptive Aspect.

LESSON UNITS: The oldest country in the world, with a literature and a civilization long antedating the time when European countries emerged from barbarism. It is a country densely populated along the seaboard and along the main waterways of the interior, by a race characterized by conservatism, stolidity, and non-progressiveness due largely to their religion of ancestor worship which leads them to regard new customs as vicious. It is a region famous for its production of rice, tea, and silk.

LESSON UNIT I. *The oldest country in the world, with a literature and civilization long antedating the time when European countries emerged from barbarism.*

1. An interesting reference to the origin of Chinese civilization is given in Mara Pratt's *China*, p. 23. This whole chapter on Chinese history, p. 22-33, can be made the basis of the discussion of the above topic though parts should be considerably amplified. The story of the wonderful things which Emperor Fuh-he and his immediate successors did for the advancement of their people, nearly 3000 years before Christ, should be related at this point. (Pratt, *China*, p. 23-25). It should be pointed out that these reforms were inaugurated fully 2000 years before the inhabitants of Europe were anything more than primitive savages living in caves and in the forests. It would be well, to further impress the children with the age of China, to have them shade in those portions of an outline map of the world which were civilized and had governments at the time of Christ, 3000 years after the above reforms were inaugurated.

FIG. 3. The Known World 500 A. D.



FIG. 2. The Known World 500 B. C.



2. The building of the great Chinese wall on the northern boundary, 200 years B. C., proves how well organized the government of China must have been in ancient times. In order that the children may get the force of this

illustration, they must realize what a tremendous undertaking it was to build a wall, which in part still stands, 25 feet wide and 30 feet high for 1500 miles over the roughest kind of country. The teacher will therefore find it profitable to spend one or two recitations in discussing with the children this remarkable structure.

Bring out in your discussions that it was built to keep out the Tartar hordes, that it took a million men ten years to build it, and that it was built seventeen hundred years before America was discovered and two hundred years before the time of Christ. Lay emphasis on the high degree of civilization required to unite the people in an undertaking of such magnitude.

For children's reading on this topic see the following :

Carpenter, Frank G. Asia. p. 128-134.

The best reference for the children. Illustrated.

French, Harry W. Our boys in China. p. 76-85.

The author has tried hard to be interesting to children, but with indifferent success. Some good material, however.

Knox, T. W. Boy travellers in Japan and China. p. 385-387.

An account of a journey to the great wall.

Phillips, E. C. Peeps into China. p. 24-28.

An estimate of the amount of material in the wall. Grades 5, 6, 7.

Pratt, Mara. Stories of China. p. 75-77.

The cause, description, age, and amount of labor involved.

Scidmore, Eliza R. China: the long-lived Empire. p. 234-249.

Reasons for its construction, its present appearance, and the immensity of the undertaking. Grades 7, 8.

Smith, Mary Cate. Life in Asia. p. 178-179.

A brief description of the purpose, appearance, and difficulties involved.

Stoddard, John L. Lectures. Vol. III. p. 332-335.

Beautiful pictures. Gives an estimate of the amount of work involved and the amount of masonry required.

Tarr and McMurry. Complete geography. p. 407.

A brief statement of facts with an illustration.

Van Bergen, R. The story of China. p. 112-125.

The Chinese version of the flood; also a brief history of ancient China. Grades 5, 6, 7.

Wilson, J. H. China. p. 205-310.

A visit to the great wall. Its origin, uses, and purpose described. Grade 8 and teacher.

3. To show the children that China had a literature reaching back to remote times, require them to spend some time in reading and discussing references to the life and work of Confucius, the great sage of China, who lived and wrote more than 500 years before Christ. The best reference for the children is the chapter, "Confucius and his Teachings," p. 166-213, in Fielde, Adele M., *A Corner of Cathay*. This describes in an interesting manner the ancestry, the boyhood, and the work of Confucius. It also de-

scribes the influence which Confucius exerted on his people and the esteem in which he is now held by them.

For further references for children, see the following :

Butterworth, Hezekiah. Traveller tales of China. p. 55-57.

The maxims of Confucius.

Holcombe, Chester. The real Chinaman.

A good account of Confucius and his philosophy. Excellent for the teacher.

Lee, Yan Phou. When I was a boy in China. p. 63-71.

A clear and simple account of the religions of China. Can be easily read by Grades 6, 7, 8.

Library of the World's Best Literature. Vol. VI. p. 3629-3648., article, "Literature of China." The founding of Chinese literature together with copious extracts from the writings of Confucius and other Chinese philosophers. Excellent for the teacher.

Martin, W. A. P. The lore of Cathay. p. 87-110.

The Confucian apocrypha and Confucius and Plato. Good for teachers only.

Miln, L. J. Little folk of many lands. p. 216-218.

A brief statement of the teachings of Confucius. Grades 4, 5, 6.

Palmer, Bertha. Stories from the classic literature of many nations.

p. 10-16. Two stories taken from the "Five Classics" of China. One is the "Metal-bound Chest," the other "The Peach-blossom Fountain of Youth." Valuable in that these stories give the reader an idea of the nature of one of the earliest Chinese volumes. Grades 7, 8.

Phillips, E. C. Peeps into China. p. 51-55.

Tells in a simple way what the Confucianists believe.

Pratt, Mara. Stories of China. p. 25-26 ; 30-33.

Tells of his life and his books. Gives a few quotations from his writings and tells how his works are made the basis of the State examinations.

Smith, A. H. Chinese characteristics. p. 307-313.

A discussion of the defects of Confucianism in comparison with Christianity. For teachers, too heavy for children.

Smith, Mary Cate. Life in Asia. p. 163-165.

Brief account of Confucianism.

Grades 6, 7, 8.

Van Bergen, R. The story of China. p. 126-133.

Excellent chapter on Confucius, his boyhood and his work.

Grades 5, 6, 7.

4. Another illustration of the age and development of China is to be found in the several important inventions placed to her credit. Five centuries before Caxton, in London, had invented printing, the Chinese were printing books from characters cut in wooden blocks. As early as 1700 years before Christ the Chinese were manufacturing a porcelain for domestic uses which no European has yet been able to imitate. Nearly 5000 years ago, it is said, the Chinese were rearing silk worms and making cloth from the thread they gave. Besides these inventions and discoveries China has

long been credited with having invented writing, paper, gunpowder, and the mariner's compass, though this claim has been disputed by some. The teacher should assign as many references to these inventions as she commands. A few recitations devoted to a discussion of their importance in the industrial world and to the degree of civilization they indicate should be given.

For children's reading along these lines see the following:

Ball, J. Dyer. Things Chinese.

See articles "Silk," "Porcelain," "Pottery," and "Printing."

Carpenter, Frank G. Asia. p. 141-143.

Describes the clay used in the manufacture of porcelain. Tells how it is baked and decorated. Grades 5, 6, 7.

George, Marian. Little journeys to China and Japan. p. 7-8.

Tells of their inventions, age, and population. Grades 4, 5, 6.

Holcombe, Chester. The real Chinaman. p. 49-53.

Tells of the antiquity of the language, the difficulty it presents to the foreigner, and the methods of writing and printing employed. Tells about the discovery of printing and describes the method still used.

Martin, W. A. P. A cycle of Cathay. p. 307-309.

The invention of printing. Grade 8.

Martin, W. A. P. The lore of Cathay. p. 23-32.

A detailed account of the inventions and discoveries of the Chinese people. For the teacher.

Morse, Edward S. Glimpses of China and Chinese homes. p. 187-205.

Description of adventures on a trip 400 miles into the interior of China to visit a potter's town. A very interesting account. Tells how the potters' wheel is used and how the pots are baked.

Grades 6, 7, 8.

Pratt, Mara. Stories of China. p. 30. Brief account only.

Smith, Mary Cate. Life in Asia. p. 162-163.

Tells of the invention of printing and the little use made of it.

Grades 6, 7, 8.

Stoddard, John L. Lectures. Vol. III. p. 227-228.

Tells of the inventions which China has made.

Tarr and McMurry. Complete geography. p. 407.

A brief statement of facts.

Van Bergen, R. A letter about China. St. Nicholas, XXVII, p. 1085-9.

An interesting account of the age, the inventions, and the wars of China.

Grades 4, 5, 6.

Wheeler, L. N. The Foreigner in China. p. 34-38.

Attempts to prove that China is not entitled to the credit for the above inventions, but that she borrowed them from the West.

In the discussion of these and all preceding references the teacher must not lose sight of the fact that she is seeking to establish in the minds of the children a *feeling* for the antiquity of the Chinese nation. She has already referred to the enlightened reforms introduced 3000 years before Christ (sec. 1.); she has discussed the details of the construction of one of the world's greatest wonders — the Chinese wall — to show the effectiveness of

the Chinese government, two centuries before Christ (sec. 2.) ; she has presented the life and work of Confucius, the founder of Chinese literature, to establish the fact that ancient China possessed a high grade literature (sec. 3.) ; and now she takes up the inventions credited to China (sec. 4.)—all to show in a concrete way that at the time when Europe was but a battlefield for barbarian hordes, China presented many of the aspects of a great and enlightened nation pursuing the arts of peace.

FACTS TO BE REMEMBERED :

1. That 3000 years before Christ, China was ruled by enlightened emperors who coined money, made maps, drained marshes, constructed vessels, and encouraged the building of villages and cities.

2. That the government of China in these early years effectively protected its people from barbarian inroads by planning and successfully completing one of the world's wonders—the great wall.

3. That the literature of China, founded by Confucius 500 years before Christ, indicates that China had reached a high degree of civilization.

4. That the invention of the compass, porcelain, paper, printing, writing, and the manufacture of silk in remote times shows that very early in history China emerged from barbarism and turned to those arts which make for peace and enlightenment.

5. The children should be able to shade in an outline map of the world and show the civilized areas at the time of Christ. In addition they should be able to locate on an outline map of Eurasia all those places in China which are mentioned in the "Course in the Essentials of Map Geography," Chapter III, Bulletin No. 2. Besides this they should be expected to show by shading, (1) the present empire of China, and (2) the ancient empire whose northern boundary lay along the line of the great wall.

LESSON UNIT II. *It is a country densely populated along the seaboard and the main waterways of the interior.*

In at least two particulars China leads the world, *i. e.* in age and population. It is said that this region, with an area only twice that of the United States, has a population equal to that of Europe and North and South America together. If the whole population of the United States and 40,000,000 more were crowded into the State of Texas the density of population would be about equal to that of the low plains of China proper, where a third of the Chinese live. The towns, roads, and rivers in these regions fairly swarm with human beings, and there are more towns and cities of hundreds of thousands and millions of inhabitants than in any other country of the world. The population is so dense in parts that thousands of families have been crowded off the land and live in houses built on rafts and boats, which float on rivers and canals. In the attempt to find room for their habitations in the most populous parts the people have terraced the hills and mountains, in many sections, to a height of one thousand feet and covered the space with their houses.

The feeling we want the children to get for the hordes of people in the low plains of China can never be secured by merely quoting the figures given by statisticians. It can come only through class discussion based upon wide reading. An anecdote such as Morse, Edward S., gives in *Glimpses of China and Chinese homes*, p. 75-76, is worth more than pages of figures which mean nothing to the child. He says, in Shanghai he once came upon a backyard containing a mound of debris twenty-five feet high. He learned that many years before there had been an extensive conflagration in the neighborhood. This mass of broken tiling, brick, plastering, and ashes could not be thrown into the shallow river as it would impede navigation, it could not be carried out and dumped in the country for every inch of ground was under cultivation. There was not a single place in the city or in the country round where the debris could be dumped except in this one vacant backyard. This tells the story of the density of the population better than sets of figures could ever do.

We would suggest that the teacher would best direct the reading of her children, in this connection, along the following lines: (1) Life on the river boats. (2) Traveller tales of mobs, and crowded streets and paths. (3) Extreme economy of the people in the field and in the home, rendered necessary by the enormous population to be supported by the land.

A general view of China's population is given in the following references:

- Ball, J. D. *Things Chinese*. p. 470-473.
Largely statistics for the teacher.
- Ford, John D. *An American cruiser in the East*. p. 387.
Gives an estimate of the population.
- George, Marian. *Little journeys to China and Japan*. p. 7-9.
Tells of the population. Grades 4, 5, 6.
- Parsons, Wm. B. *An American engineer in China*. p. 291-303.
A careful discussion of the probable population of China, with the conclusion that the general estimate is too large. For teacher.
- Pratt, Mara. *Stories of China*. p. 42-47.
- Smith, A. H. *Village life in China*. p. 17-19.
Describes an attempt to compute exactly the population of certain districts and the conclusion drawn. For teacher.
- Smith, Arthur H. *Chinese characteristics*. p. 144-151.
Tells of the remarkable physical vitality of the people and the effect this has on the population. Grades 7, 8.
- Wilson, J. H. *China*. p. 45-50.
A general survey of the population, together with a discussion of the origin of the race. For teacher.

1. *Life on the river boats of China.*

The following references will be found of value to the children in this connection:

- Andrews, Jane. *The seven little sisters*. p. 57-70.
A pretty story of little Pen-se, who lived on a river boat in China. Grades 4, 5, 6.

- Carpenter, Frank G. *Asia*. p. 134-141.
One of the best accounts for the children of the customs and habits of the boat people. Grades 5, 6, 7.
- Del Mar, Walter. *Around the world through Japan*. p. 59-90; 98-100.
Gives an idea of the dense mass of house boats in Canton. Grade 7, 8.
- George, Marian. *Little journeys to China and Japan*. p. 25-34.
Methods of transportation mentioned. Boats and how propelled. Grades 4, 5, 6.
- Krout, Mary H. *Two girls in China*. p. 52-61.
A journey on a house boat. An excellent description of the life of the people on these boats. Grades 4, 5, 6.
- Miller, Oliver T. *Little people of Asia*. p. 344-346.
Tells how the children and babies are cared for on the boats. Grades 4, 5, 6.
- Morse, Edward S. *Glimpses of China and Chinese homes*. p. 111-116.
Describes the throng of boats on the river at Canton. Grades 6, 7, 8.
- Phillips, E. C. *Peeps into China*. p. 134-141; 161-164.
Life on the river. Grades 5, 6, 7.
- Pratt, Mara. *Stories of China*. p. 45-47; 85-89; 91-98.
An interesting description of boat life in various Chinese cities. Grades 4, 5, 6.
- Rupert, Wm. W. *A geographical reader*. p. 282-290.
A description of a scene on the river in Canton. Grades 5, 6, 7.
- Smith, Mary Cate. *Life in Asia*. p. 158-160.
Customs of the people living on the boats. Grades 5, 6, 7.
- Stoddard, John L. *Lectures*. Vol. III. p. 230-235; 246-249; 268-270; 295-296; 308-314.
An excellent description of the boat population of Hong Kong and Canton. A story of the precautions which travellers must take when entering these boats. Grades 5, 6, 7.

2. *Traveller tales of mobs, and crowded streets and paths.*

The children will find much valuable as well as interesting material in the following references :

- Carpenter, Frank G. *Asia*. p. 105-107; 111-120.
The sights and street scenes of Peking, the most populous city of China. Grades 5, 6, 7.
- Morse, Edward S. *Glimpses of China and Chinese homes*. p. 3-22; 111-129.
Interesting chapters describing a trip through Shanghai and Canton. Gives one a good notion of the crowds, the labyrinth of narrow streets, and the squalor and filth of Chinese cities. Grades 6, 7, 8.
- Pratt, Mara. *Stories of China*. p. 67-74.
The sights to be seen by the traveller in the city of Peking. Grades 4, 5, 6.

3. *Extreme economy of the people in the field and home, rendered necessary by the enormous population to be supported by the land.*

The children will find the following references among the most interesting assigned on China.

Carpenter, Frank G. Asia. p. 143-145.

Recounts in simple language the thrift and economy of the farmers.

Fielde, Adele M. A corner of Cathay. p. 1-13; 14-23.

Two excellent chapters on the economy of the people practiced on the farm and in the household. Grades 5, 6, 7.

Ford, John D. An American cruiser in the East. p. 387-391.

Details of how the farmers utilize every inch of space and the efforts they make to fertilize the soil. Grades 6, 7, 8.

Holcombe, Chester. The real Chinaman. p. 310-329.

A very interesting chapter on the poor in China. Gives concrete instances of the extremity to which poverty has reduced the people.

Grades 5, 6, 7.

Scidmore, Eliza R. China: The long-lived empire. p. 14-15.

Tells what the wretched people resort to to keep from starving, in times of floods. Grades 5, 6, 7.

Smith, A. H. Chinese characteristics. p. 19-26.

An excellent chapter on the economy practiced. Concrete instances given. Grades 5, 6, 7.

Smith, Mary Cate. Life in Asia. p. 144-145.

The food of the Chinese and the extent to which agriculture is carried. Grades 5, 6, 7.

FACTS TO BE REMEMBERED.

1. That one-third of the population of the world lives in China, whose area is less than twice that of the United States.

2. That the population is so dense in the low plains along the coast that millions of people have been crowded off the land and forced to live on boats and rafts on the rivers and canals.

3. That every inch of land in the habitable part of China is under cultivation.

4. That the Chinese have to practice an economy which we never have experienced, to eke out a living from their over populated land.

LESSON UNIT III. *It is a country densely populated by a race characterized by conservatism, stolidity, and non-progressiveness.*

It is true of China, more than of any other nation in history, that customs once established are rarely changed. Proposed reforms in this field are looked upon and resented by the Chinese as being a violation of sacred practices. Of the countless individuals who daily conform to the proprieties of dress and the elaborate etiquette of home and public life, not one is concerned in the least with the origin or the reason of his acts. Devotion to precedent, carried further than mere habit, becomes almost a religion.

Custom in the Empire has fixed the time when winter furs shall be removed and straw hats put on. In sudden "cold snaps" travellers upon requesting the landlord to heat their rooms are met with the reply, "The season for heating has not arrived." A foreigner in China once had occasion to use a kind of square brick which was larger than those made in the region. The Chinese foreman of the brick kiln, refused to permit any such innovation declaring, as his reason, that "under the whole heavens there was no such mould." A bride is not allowed to visit her mother for four months after her marriage, and then only in the event that there has been no death in the family or among the neighbors. A certain bride had waited impatiently the time when she might see her mother who lived but two miles away. Just before the time came, her mother's neighbor died and the daughter's visit was delayed one hundred days on that account. Before this period expired, the bride's mother-in-law died, and according to custom the bride went into mourning for three years. Before putting off mourning she bore a son which made it necessary to again delay her visit for several months. When custom finally permitted her to see her mother, the daughter found her insane as a result of the delay.

This blind and obstinate adherence of the Chinese to the ways of the past, accounts for the fact that China, once the superior of other nations in enlightenment, is now very far from being their peer.

These characteristics of conservatism, stolidity, and non-progressiveness are the general notions which the children are to draw from many such concrete incidents and illustrations. It is by no means possible to take up all the customs which illustrate this spirit of conservatism. To avoid desultory and hap-hazard work it will be well, therefore, to assign reading along but a few of the many lines which are at the option of the teacher. We would suggest the following topics which best illustrate the force of Chinese custom.

(1) The practice of foot binding among the women and of wearing long finger nails by both women and men as marks of high birth and breeding.

(2) The methods employed in manual labor.

(3) Chinese means of transportation and the attitude of the people toward the introduction of the railroad.

(4) Ceremonial life.

(5) Educational practices.

1. *The practice of foot binding among the women and the wearing of long finger nails by both men and women, as marks of high birth and good breeding.*

It seems to us astonishing that mothers have the heart to force their children to undergo such continuous suffering for a period ranging from five to eight years, as this practice of foot binding entails. Yet the custom has prevailed in China for more than a thousand years. To understand the practice we must remember that the Chinese aristocrat is as proud and jealous of the good name of his family as the bluest-blooded European noble. He is very careful not to do anything that will in any way lower him and

his family in the estimation of his neighbors. If his daughters were permitted to grow up without conforming to this practice they would not be recognized as ladies and would therefore disgrace their father's name. Such is the force of the custom that numerous instances have been known of little girls who, when their parents were persuaded by missionaries to refrain from the practice, actually procured bandages and tried to do the binding themselves. (Pratt, *Stories of China*, p. 189-192.)

It is this notion of the tremendous force of tradition which will cause the people to undergo not only inconvenience but great physical suffering which is the teacher's excuse for presenting the details of this disgusting practice. While the children should read the details given in the following references, it will be well for the teacher to confine class discussion to bringing out the Chinese view of the custom. In this manner the teacher can best develop the notion of how much more difficult it is for the Chinese to break away from custom than it is for us.

For other references to children's reading see the following :

Andrews, Jane. Seven little sisters. p. 65-67.

How little Pen-se's feet are bound.

Bryson, Mrs. M. I. Home life in China. p. 99-103.

The details of the practice given and reasons advanced for its origin.
Grades 6, 7, 8.

Carpenter, F. G. Geographical reader. Asia. p. 156-157.

The practice described with illustrations. Grades 5, 6, 7.

Feudge, Fannie R. How I kept the Chinese New-Year. St. Nicholas, vol. III. p. 225-227.

Description of a beautiful Chinese girl and her sufferings during the practice.
Grades 4, 5, 6.

Ford, John D. An American cruiser in the East. p. 340-341.

The practice described.

George, Marian. Little journeys to China and Japan. p. 51-53.

Suffering caused. Grades 4, 5, 6.

Holcombe, Chester. The real Chinaman. p. 102-103; 135.

The reasons why the nails are worn long and the pains taken to keep them from being broken. An offer made to a Chinese beggar for his finger nails and the result.
Grades 5, 6, 7.

Krout, Mary H. Two girls in China. p. 75-76; 112-116.

The practices and why the people still follow them.

Grades 4, 5, 6.

Knox, T. W. Boy travellers in Japan and China. p. 417.

Custom described.

Lee, Yan Phou. When I was a boy in China. p. 46-49.

Tells of the family pride which compels the practice. Describes the sufferings undergone during the operation. Grades 5, 6, 7.

Little, Mrs. Archibald. Intimate China. p. 91-111.

The reasons for the practice, the method of binding, the terrible results of the practice and the movement looking toward the abolishment of this practice. Illustrations. Grades 7, 8.

- Little, Mrs. Archibald. The land of the blue gown. p. 305-370.
Progress of the anti-foot binding movement. For teacher.
- Miller, Olive Thorne. Little people of Asia. p. 316-318; 340.
The force of custom portrayed. Grades 5, 6, 7.
- Miln, Louise J. Little folk of many lands. p. 201-215.
An admirably written sketch of Li Loo, the favorite child of a wealthy mandarin. Tells of many customs, among others that of foot binding, how it is done, why, and the origin of the practice.
Grades 4, 5, 6.
- Morse, Edward S. Glimpses of China and Chinese homes. p. 34-36;
129-131.
Describes the details of the operation and enumerates the theories which have been advanced for its origin. Grades 5, 6, 7.
- Phillips, E. C. Peeps into China. p. 86-88.
Simple story of the practice. Grades 5, 6, 7.
- Scidmore, E. R. China: the long-lived empire. p. 188-189; 452.
Gives reasons why this custom is still practiced. Grades 5, 6, 7.
- Stoddard, J. L. Lectures, vol. III. p. 305-308.
A good description of the practice of growing long finger nails and of foot binding.
- Wilson, J. H. China. p. 50-52.
The age of the custom. The force of the tradition.
For teachers and 8th grade.

2. *The methods employed in manual labor.*

A Chinese farmer can purchase a complete outfit, it is said, for forty dollars. His plow will cost him \$2. He will need a pair of harrows and a fanning mill at a cost of \$4. A pump worked by treadles to irrigate his farm will cost him another \$4. His water buffalo will cost him \$20, and \$10 will cover the cost of sickles, hoes, baskets and sundries. Total \$40, for a complete farming outfit in China. (See Fielde, *A corner of Cathay*, p. 6.)

The plow is made of wood to which is fastened a bit of hammered iron, which throws a furrow the width of one's hand. The harrow is a heavy stick armed with a single row of stout wooden teeth and furnished with a framework to guide it. No carts or wagons are ever used. Man is his own beast of burden. All purposes of portorage are served by the carrying-pole which is supported by his shoulder. At the first suggestion of Western methods the Chinese laugh and tell you that their way is the best, for "Did not our fathers and our grandfathers farm in the same manner?"

The Chinese coolie who is given a foreign sickle, bright and sharp, receives it with a smile, but is seen the next day cutting his grain with a bit of old iron, four inches in length and fitted to a rude handle. The washerman is provided with a foreign washing machine, which saves time, labor, soap, and the clothing to be washed. He is given a patent wringer which requires no strength, and does not damage the fabrics. The washing machine and the wringer are soon set aside and the washerman continues to scrub and wrench the garments into holes and shreds as in former days.

"The old is better," each says. (See Smith, *Chinese characteristics*, p. 75.)

It is this notion of the unwillingness of the Chinese to employ any of the labor-saving devices used in Western nations which the teacher should seek to establish through the children's reading and by means of class discussions. Bring out that only the simplest and rudest machinery either in the arts or in agriculture is ever used, and that the time required for production makes everything intrinsically costly. This is particularly apparent in connection with the Chinese tea trade, which she is fast losing, because India and Ceylon have introduced labor-saving machinery and therefore can produce the tea more cheaply. China suffers because she does not invent.

For references to reading for the children along the line of methods of labor, see the following :

Carpenter, F. G. *Asia*. p. 143-154.

An interesting description of the methods employed in farming. Well illustrated. Grades 5, 6, 7.

Fielde, Adele. *A corner of Cathay*. p. 1-13.

An interesting chapter on farm life. Grades 6, 7, 8.

Ford, John D. *An American cruiser in the East*. p. 388-390.

Holcombe, Chester. *The real Chinaman*. p. 80-83.

Tells of seeing a plow drawn by a cow, a donkey, and the farmer's wife, the three harnessed and pulling together. Grades 5, 6, 7.

Knox, T. W. *Boy travellers in Japan and China*. p. 332-334.

Rural scenes. Methods of agriculture.

Krout, Mary H. *Two girls in China*. p. 59-60 ; 101-102.

Plowing with water-buffalo and the crude method of sawing lumber by hand. Illustrated. Grades 4, 5, 6.

Parsons, Wm. B. *An American engineer in China*. p. 96-98 ; 219-220.

Describes some of the crude methods of farming and irrigation. Grades 7, 8.

Pratt, Mara. *Stories of China*. p. 49-51.

Shows how crude are the methods employed in agriculture. Grades 4, 5, 6.

Smith, A. H. *Village life in China*. p. 44-48.

Describes the village well and the crude method of digging it. Grades 7, 8.

3. *Methods of travel and the attitude of the people toward the introduction of the railroad.*

One can tell much regarding the civilization and progressiveness of any country by an examination of its modes of travel. In China rapid transit is not the issue of the hour. The demands of the millions of people in Northern China are satisfied, just as they were thirty centuries ago, by the two-wheeled carts made without seat or springs. In the South, because of the wretched condition of the roads, the sedan chair supported on the shoulders of coolies is the principal mode of conveyance. In other parts of the empire immense wheelbarrows loaded with both passengers and goods are familiar sights.

The slowness of the people to adopt new ways is illustrated by their attitude toward the first railway built in China. After patronizing it enthusiastically for a time, the Chinese bought it from its owners, tore up the rails and threw them into the river, and sent the locomotives to Formosa where they rusted on the beach. (Scidmore, *China: the long-lived empire*, p. 220.)

The teacher must bear in mind constantly throughout the discussions of this and of the other topics suggested that she is presenting details not so much for their own sake as for the purpose of establishing the general notion in the child's mind, that the Chinese people are conservative, and non-progressive in the extreme.

For references to concrete material see the following:

- Carpenter, Frank G. *Asia*. p. 107-111.
Description of the wheelbarrow in use. Grades 6, 7, 8.
- Del Mar, Walter. *Around the world through Japan*. p. 112-113.
Describes a wheelbarrow ride in Shanghai. Grades 7, 8.
- Ford, John D. *An American cruiser in the East*. p. 294; 392-393.
The prejudice against the railroad described. An anecdote given to show their hostility. Grades 6, 7, 8.
- George, Marian. *Little journeys to China and Japan*. p. 25-26.
The opposition of China to the railroads. Grades 4, 5, 6.
- Krout, Mary H. *Two girls in China*. p. 49-51; 85-89.
Description of the sedan chairs and how they are used. Attitude of people toward railroads. Grades 4, 5, 6.
- Little, Mrs. Archibald. *The land of the blue gown*. p. 40-41.
Excellent picture of the wheelbarrow.
- Miller, Olive T. *Little people of Asia*. p. 307-308.
Use of the wheelbarrow. Illustration. Grades 4, 5, 6.
- Parsons, Wm. B. *An American engineer in China*. p. 221-224; 245-285.
An interesting chapter on methods of transportation on both land and water. This is one of the best references for children on this topic I know. The history of railroad building in China also given. The attitude of the people portrayed. Grade 8 and teacher.
- Phillips, E. C. *Peeps into China*. p. 38-41; 97-99.
Description of carts, wheelbarrows, and boats. Grades 5, 6, 7.
- Pratt, Mara. *Stories of China*. p. 67-70.
Sedan chairs, carts, and wheelbarrows described. Grades 4, 5, 6.
- Scidmore, Eliza R. *China: the long-lived empire*. p. 14-19; 180-281.
Much interesting material.
- Smith, A. H. *Chinese characteristics*. p. 122-124.
Attitude toward the introduction of the railroad and the telegraph. Grades 7, 8.
- Smith, Mary Cate. *Life in Asia*. p. 142-144.
Methods of transportation described and hostility to the introduction of railroads mentioned. Grades 6, 7, 8.
- Smith, A. H. *Village life in China*. p. 35-43.
An interesting description of the condition of Chinese roads and of the laborious methods employed in ferrying across streams. Grades 7, 8.

Stoddard, J. L. Lectures, vol. III. p. 253-258.

Reason for Chinese opposition to railroads.

Wilson, J. H. China. p. 82-84.

Tells of the difficulties in the way of the introduction of railroads.

For teacher.

4. *Ceremonial life.*

In rigid adherence to outward forms China excels all other nations. Much of her politeness, however, has degenerated into mere mannerism. Still, the form survives, and makes up by the minuteness of detail and the rigidity of exaction what it lacks in spirit. The system of etiquette in becoming fixed and crystalized has also become highly complicated and tedious in its forms. It is impossible to overestimate the importance which the Chinese, of all ranks and classes, attach to these trifling details of etiquette. (See Holcombe, *The real Chinaman*.)

The teacher will find many interesting incidents and stories in the following references, which will illustrate the above remarks. She can profitably spend one or two lessons in discussing the utter lack of reason in the mass of forms and how the rigid exaction of these customs tends to retard the progress of the people.

For references see the following :

Fielde, Adele M. A corner of Cathay. p. 49-70.

A very interesting chapter on mortuary customs. Grades 5, 6, 7.

Holcombe, Chester. The real Chinaman. p. 171-179 ; 261-285.

The etiquette of the queue. The origin of the custom of wearing it and the esteem in which it is now held. The serious matter made of queue cutting. The story of the etiquette of a cup of tea and the result of its violation. A very interesting chapter. Grades 5, 6, 7.

Martin, W. A. P. A cycle of Cathay. p. 323-325.

Incidents of a rigid adherence to ceremony. Grade 8.

Miln, Louise J. Little folk of many lands. p. 193-200.

The story of "O Man," a Chinese foundling. Shows the ceremonial life of a child. Interesting. Grades 5, 6, 7.

Parsons, Wm. B. An American engineer in China. p. 127-147.

An interesting chapter characterizing the qualities of the Chinese people. Full of incidents and illustrations. Grades 7, 8.

Pratt, Mara. Stories of China. p. 129-131.

The flattering terms and phrases used in polite conversation.

Grades 5, 6, 7.

Price, Harrie. Our neighbor John. St. Nicholas, vol. XX. p. 64-66.

An interesting account of the customs of the Chinese which are the direct opposite of our own. Speaks of the inventions which have been made by the Chinese. Well illustrated. Grades 3, 4, 5.

Smith, A. H. Chinese characteristics. p. 33-40 ; 102-103 ; 300-302.

An interesting chapter on Chinese politeness. Many incidents of the rigid ceremony required. A comparison given between the Chinese and the Anglo-Saxons with respect to love of ceremony.

Grades 5, 6, 7.

Smith, Mary Cate. *Life in Asia.* p. 166-170.

The ceremony over a cup of tea and the rigid rules regarding dress.

5. *Educational practices.*

The teacher should assign the references on the educational system of China which follow. She should first have the children tell about the quaint ceremonies performed when the child first enters school, about the studies he pursues, and about the queer ways the children have of studying aloud and reciting with their backs turned toward the teacher. After this interesting material has been presented bring out in further discussions that China has no system of public instruction, and hence all learning is acquired in private classes; that the course in instruction consists in a study of the writings of Confucius and other ancient scholars; that all applicants for public offices must pass a series of examinations on these classics before they are given an office; that their studies everywhere admonish the student to be good, and just, and honest, but no mention is ever made of telegraphy, railroads, surgery, or anything pertaining to present day western civilization; and that in consequence the many years spent in study in no way fits the student for the duties he is expected to perform in his official life. Concrete illustrations, to be found in abundance in the following references, should be given by the children as the points are taken up in discussion.

For children's reading see the following references:

Bryson, Mrs. M. I. *Home life in China.* p. 56-74.

Excellent chapter on school life.

Grades 6, 7, 8.

Fielde, Adele M. *A corner of Cathay.* p. 94-110.

Tells of teachers' salary, the ceremonies performed upon opening school, punishments, methods of study and recitation, the course of study, and examinations. Excellent.

Grades 6, 7, 8.

George, Marian. *Little journeys to China and Japan.* p. 57-59.

A description of a Chinese school.

Grades 4, 5, 6.

Krout, Mary H. *Two girls in China.* p. 154-163.

An account of a Chinese mission school.

Grades 4, 5, 6.

Lee, Yan Phou. *When I was a boy in China.* p. 50-62.

Chapter on schools and school life.

Grades 6, 7, 8.

Little, Mrs. Archibald. *Intimate China.* p. 67; 203-219.

Describes the babble of voices to be heard in the schools. Treats also the courses of study, and the examinations which the students are required to take.

Grades 7, 8.

Martin, W. A. P. *The lore of Cathay.* p. 281-383.

An exhaustive survey of the educational system and practice.

For teacher.

Miln, Louise J. *Little folk of many lands.* p. 190-191.

The ceremony when a boy enters school. Methods of study and recitation.

Grades 5, 6, 7.

Morse, Edward S. *Glimpses of China and Chinese homes.* p. 172-176.

Description of the examination hall in Canton, and the absurd nature of the questions propounded in the examination.

Grades 6, 7, 8.

Pratt, Mara L. Stories of China. p. 179-194.

The child's clothing, the furniture of the schoolroom, the Chinese language, and the methods of study. Grades 4, 5, 6.

Smith, A. H. Chinese characteristics. p. 28-29 ; 251.

The defects of the educational system. The patience which aspirants for honors in the examinations exercise. Methods of study and recitation. Grade 8.

Stoddard, John L. Lectures, vol. III. p. 326-332.

Description of the competitive examinations which are given to determine political rank. Grades 7, 8.

Van Bergen, R. The story of China. p. 44-51 ; 96-104.

Tells how public officers are appointed, and what the boys learn at school. Illustrated. Grades 5, 6, 7.

FACTS TO BE REMEMBERED :

1. That the practice of foot binding illustrates the tremendous force of tradition in China.
2. That the methods employed in manual labor are extremely crude and laborious.
3. That transportation is slow and is carried on now as it was centuries ago by wheelbarrows, sedan chairs, carts, and by rude boats poled about the rivers and canals.
4. That the accumulated etiquette of ages is trifling and senseless, but that its demands are rigidly enforced, which results in the repression of any tendency toward progress.
5. That the studies of those preparing for official life in no way deal with present day practices, and hence in no way prepares for the duties of public service.
6. That all of the above goes to prove that as a race the Chinese are conservative, stolid, and non-progressive.

LESSON UNIT IV. *The Chinese race is characterized by conservatism, stolidity, and non-progressiveness, due largely to their religion of ancestor worship, which leads them to regard new customs as vicious.*

1. China, at the dawn of history, had a national religion which recognized the worship of the Supreme Ruler ; the worship of powers presumed to preside over departments of nature ; and the worship of deceased ancestors. In these later years, the Supreme Ruler is considered too august to be approached by ordinary mortals ; the priests and magistrates attend to the worship of the other divinities ; but the worship of ancestors is obligatory on all and therefore constitutes the very heart of the religion of China. Every household has somewhere within its doors a small shrine, in which are deposited the tablets of ancestors, and of all deceased members of the family who have passed the age of infancy. In these tablets, according to popular belief, dwell the spirits of the dead. Since these spirits are powerful to work good or ill to their descendants they must be propitiated by offerings. In consequence, before these tablets there ascends the smoke of daily incense,

and twice in the month offerings of fruit and flowers are presented, accompanied by the most solemn obeisances. (See Martin, *The lore of Cathay*, p. 264-278.)

This system not only underlies the religion of the Chinese people, but most of their everyday acts as well. Social customs, judicial decisions, appointments to the office of prime minister, and even the succession to the throne are influenced by it. It explains why there are no bachelors in China, for every man must marry and rear sons to perform this rite, essential to his eternal happiness, at his grave. This service also explains why such great stress is laid upon the return of a dead body from the greatest distances for burial in the ancestral ground. If buried elsewhere the unfortunate soul of the departed is doomed throughout eternity to wander up and down the earth, unhoused, unfed, uncared for, unknown, forever an outcast.

Ancestral worship in its effect on the Chinese nation is a chain which binds the present generation to the generations of the past. Through it the millions of the living Chinese are under the most galling subjection to the hundreds of millions who are dead. The Golden Age of the Chinese lies in the past. The present and the things of the present are held to be inferior and hence are to be depreciated. The highest ideal of the present is, therefore, imitation of the past. This, then, explains what seems at first but blind and obstinate adherence to the ways and customs of the past and why an invasion of these is regarded by the Chinese as an invasion of sacred regions.

In topic III the children saw in foot-binding an illustration of the force of custom and tradition ; in the crude methods employed in the various forms of manual labor they saw how tenaciously the Chinese hold to the past ; in the primitive methods of transportation they realized the strength of the dislike to new ways ; and in their discussion of the rigid exactions of ceremonial life, the children learned how the progress of the people is retarded. All these points, the teacher will remember, were parts of a lesson unit the aim of which was to present a mass of related details from which the children were to draw the general notion that the Chinese people are conservative, stolid, and non-progressive.

The general notion is presumed, therefore, to have been gotten, and in presenting the details of the practice of ancestor worship it is the teacher's purpose to give the children the means for explaining what they have already learned as a fact. She must not lose sight of the fact, in this connection, that her presentation is primarily not for the sake of the interest the details give, but solely because of their significance in accounting for Chinese antagonism to Western ways.

For children's reading see the following :

Ball, J. D. *Things Chinese*. p. 25-29.

A good discussion of the practice, together with the story of its origin.
For the teacher.

- Butterworth, Hezekiah. Traveler tales of China. p. 58-83; 84-88.
 Ghost thanks—a story of Ginseng. A very interesting story which shows the respect the Chinese pay to the bodies of their fellows. The silent mystery of fung shui—ancestor worship. An interesting description. Grades 5, 6, 7.
- George, Marian. Little journeys to China and Japan. p. 41.
 The room set apart for worship. Grades 4, 5, 6.
- Holcombe, Chester. The real Chinaman. p. 123-125.
 The theory and its application. Why the bodies of the Chinese dead are returned to their native country. The ancestral tablet. Grades 6, 7, 8.
- Krout, Mary H. Two girls in China. p. 144-145.
 The ancestral hall described. Grades 4, 5, 6.
- Martin, W. A. P. The lore of Cathay. p. 264-278.
 Ancestor worship in relation to other religions and to the social order of China. For teacher.
- Miln, Louise J. Little folk of many lands. p. 189-191.
 A description of the custom. Grades 5, 6, 7.
- Pratt, Mara. Stories of China. p. 126-128,
 The Chinese theory of the custom. The ancestral tablet described. Grades 5, 6, 7.
- Smith, A. H. Chinese characteristics. p. 184-185.
 A description of the system. Grades 6, 7, 8.
- Smith, Mary Cate. Life in Asia. p. 163-165.
 The use of the ancestral tablet. Grades 5, 6, 7.

2. The worship of ancestors is not all bad. Its good side lies in the respect and care which the Chinese people exercise towards their parents. One of the most pleasing features of the home life of these people is the deference and respect which the younger members of the family show to their elders. Such phrases as "the old man," "the governor," and "the old woman," are not to be found in their language. Age is invariably respected and honored. A ragged, dirty, foul-mouthed beggar woman upon the streets is never addressed by any other term than "venerable lady." (See Holcombe, *The real Chinaman*.) Neither does obedience to parents cease when the child is grown. Frequently a man after he is married and has a family of his own will ask permission of his mother when he wishes to go on the streets after dark. A traveller relates that a Chinese millionaire, forty years of age, was asked to dinner by the American consul. He replied, "I think I can come, but I must first ask my mama." It is said in the "Filial piety classic" that: "There are three thousand crimes in which one or the other of five kinds of punishment is attached as a penalty, and of these no one is greater than disobedience to parents."

The Chinese have a proverb that, "of a hundred virtues, love for parents is the most worthy." The worst crimes which a Chinese is capable of committing are those against parents. Death is the penalty for striking a parent, and if a son were to kill his father, his execution would be performed after the most horrible method human ingenuity has yet devised —

that of tying the culprit to a cross and slowly slicing him into pieces. (See Carpenter, *Asia*.)

There are constantly arising extraordinary instances of how Chinese sons and daughters deny and sacrifice themselves for their parents. A traveller tells of an instance which came under his own observation. A prisoner accused of robbery, was thought to have accomplices. In the effort to make him implicate others he was most cruelly beaten and tortured. It was discovered at a later time that he had never committed the robbery at all, but had given himself up in the place of his father who was the real culprit. (See Phillips, *Peeps into China*.) The Chinese believe that serious cases of illness of parents can only be cured by having the parent unwittingly eat a broth made from a piece of flesh cut from the arm or the leg of the son or daughter. Mr. Smith, in his *Chinese characteristics*, says that he was personally acquainted with a young man who cut off a slice of his leg to cure his mother, and who exhibited the scar with much pride. In Peking there is a great, bronze bell whose deep, rich tones can be heard at great distances. It is centuries old, and is larger than any other bell in the world. It is said that when the Emperor ordered it cast, all the master molders of the empire were summoned to Peking. The metal was collected — great quantities of gold, silver, and brass — and the furnace fires were lighted. But the metals refused to mix, and three times the bell was cast without success. At last the Emperor warned the mandarin-in-charge that death awaited him if he failed again. The mandarin had a beautiful daughter who upon learning of her father's danger consulted a soothsayer who told her that in order to make the metals unite, they must be mixed with human blood. On the day when the bell was to be cast for the fourth time, Ko-N'gai, the daughter, begged permission to go with her nurse to see the metal poured into the mold. They stood on the platform looking down upon the seething mass of brass and gold, boiling and bubbling, and when the final moment came, Ko-N'gai cried: "For thy sake, O, my father!" and leaped into the molten metal. As she sprang her nurse tried to catch and hold her, but Ko-N'gai slipped through her grasp and left only one tiny shoe in the nurse's hands. When the bell is sounded and its tones die away, the Chinese say that they can hear the voice of Ko-N'gai calling "Hi-ai" and then the Chinese mothers say to their little ones:

"Listen! that is Ko-N'gai; that is Ko-N'gai crying for her shoe."
(Taken from Krout, *Two girls in China*, p. 137-140.)

Stories such as this are daily repeated to the children until they are wrought into the very fibre of their nature, so that it is of little wonder that filial piety becomes the greatest of all virtues in Chinese eyes. In fact Chinese children have a little book called, "Twenty-four examples of filial piety" which they read and study as our children do the Mother Goose rhymes. Each of these stories recounts the incidents of a child who has gained great honor and reputation for the love and care which he has given his parents under most difficult and trying circumstances. (Several of these stories are given in Mara Pratt's, *Stories of China*, p. 161-166.) It is safe

to say that this book has been a large factor in shaping the ideals of the masses of China along this line of filial piety.

The incidents given above are but an indication of the nature of the material contained in the following references. The teacher could well spend two or three recitations in discussing with the children this aspect of ancestor worship. It might be well for them to contrast the attitude of Chinese children toward their parents with that of American children toward theirs. If this is handled tactfully by the teacher it cannot but have a very healthful reaction on the children.

For references to the best children's reading see the following:

Ball, J. D. *Things Chinese*. p. 236-238.

A description of what it means, with instances of extraordinary self-denial related.

Bryson, Mrs. M. I. *Home life in China*. p. 66-74.

A collection of stories taken from the "Twenty-four examples of filial piety," the children's reading book of China, and which have influenced the rising generations to a remarkable degree. Also the story of Moh-lau, the daughter of a famous Chinese general, who, upon the sickness of her father, bravely placed herself at the head of his army.

Grades 5, 6, 7.

Carpenter, Frank G. *Asia*. p. 123-125.

Some good illustrations of the relations of parents and children.

Grades 5, 6, 7.

Fielde, Adele M. *A corner of Cathay*. p. 82-86.

Instance related of the sacrifice a young man made for his father.

Grades 5, 6, 7.

Holcombe, Chester. *The real Chinaman*. p. 34-35; 43-45; 89-92.

Tells of the strict provisions of the Chinese code regarding the punishment of anyone using abusive language toward his parents. Portrays the deference and respect shown to parents by the younger members of the family.

Grades 5, 6, 7.

Krout, Mary H. *Two girls in China*. p. 118-119; 139-140.

The reasons for the regard in which the Empress Dowager is held. Chinese legend of the devotion of a young man to his mother. Legend of the great bell and how a beautiful daughter sacrificed herself to save her father from death.

Grades 4, 5, 6.

Lee, Yan Phou. *When I was a boy in China*. p. 18-21.

A simply written account of the condition of the mind of a Chinese boy.

Grades 5, 6, 7.

Lee, Yan Phou. *The boys and girls of China*. St. Nicholas, vol. XVII. p. 362-363.

An account of the attitude of boys to their parents, also a description of their games.

Grades 4, 5, 6.

Little, Mrs. Archibald. *Intimate China*. p. 112-114.

An incident of a daughter's devotion.

Grades 7, 8.

Martin, W. A. P. *A cycle of Cathay*. p. 115-116.

Stories taken from the "Twenty-four examples of filial piety." An account of how a young man evaded punishment for striking his father.

Grade 8.

- Martin, W. A. P. The lore of Cathay. p. 106-110.
The quibbles which arise over filial duty. Interesting material for teacher to use for illustrative purposes.
- Pratt, Mara. Stories of China. p. 128-131; 160-165.
Relation of parents to children. Five stories of filial piety which are repeated to Chinese children until they have learned them as other children learn the catechism. Grades 5, 6, 7.
- Smith, A. H. Chinese characteristics. p. 171-185.
An excellent chapter on the relations between parents and children. Many concrete instances are given. Teacher and grades 6, 7, 8.
- Stoddard, John L. Lectures, vol. III. p. 302.
An account of the self-sacrifice undergone by a young girl to effect her mother's cure. Grades 5, 6, 7.

FACTS TO BE REMEMBERED :

1. That ancestor worship underlies both the religion and the every day acts of the Chinese people.
2. That its effect is to bind the Chinese people to the past and to the ways of the past.
3. That it explains why China is conservative and non-progressive in her ways.
4. That its good side lies in the respect and the care which it causes the Chinese people to exercise toward their parents.

LESSON UNIT V. *It is a region famous for its production of rice, tea, and silk.*

1. *Rice :*

Although the Chinese government forbids the exportation of rice, there being not enough produced in some seasons for home consumption, still China's total production is greater than that of any other region. For this reason and for the further reason that the Chinese are known to the popular mind as a nation of rice eaters we suggest that the study of this industry be made in connection with the study of China. If the teacher follows this with a survey of other rice regions, bringing out by comparison and contrast with China the methods employed and the extent of the industry, this topic will take its proper and correct shape in the child's mind.

The best accounts for the children of how rice is grown and prepared for the market are to be found in Chamberlain, *How we are fed*, p. 70-76, and in Kirby, *Aunt Martha's corner cupboard*, p. 121-134. These accounts tell, in language which will interest the children, how the growing rice requires a great deal of moisture and warmth; how the ripened grain in China is cut by hand; how it is thrashed out and hulled by rude, laborious methods; how the rice grains are polished to make them more marketable; and finally what improvements have been introduced in its cultivation and preparation for market in the rice regions of our own country. These two articles can very well be made the basis for the discussion of the topic.

In the assignment of reading and in her class discussions the teacher should now turn to rice cultivation and production in other regions. She should require her children to locate the regions of the world which have the combination of warmth and rainfall, which is essential to the profitable pursuit of the industry. The children should locate those parts of the above regions which produce rice in considerable quantities. (The accompanying map will show these areas to the teacher.)



FIG. 4. SHOWING THE RICE REGIONS OF THE WORLD.

The thought should be brought out that in the culture of rice, machinery can not be used to any great advantage on account of the muddy condition of the fields. Consequently those countries, as China and Burmah, where labor is cheap, will probably always lead the world in the quantity of the grain produced.

For references to the children's reading see the following :

- Andrews, C. C. Brazil: condition and prospects.
Rice in Brazil.
- Andrews, Jane. Seven little sisters. p. 61-63.
Little Pen-se eats her rice with chop sticks. Grades 3, 4, 5.
- Ball, John D. Things Chinese. p. 514-515.
A short article on rice culture in China. For teacher.
- Carroll and Carroll. Around the world. Book II. p. 224-226.
Hawaiian rice fields ; how planted, irrigated, and gathered. Grades 4, 5, 6.
- Carpenter, Frank G. Asia. p. 66-67 ; 200.
The cultivation of rice in Japan and Burmah. Grades, 5, 6, 7.
- Carpenter, Frank G. North America. p. 119-124.
Among the rice fields of the southern states. Grades 5, 6, 7.
- Eggleston, E. E. Stories of great Americans. p. 21-23.
The story of how rice culture was introduced into the United States. Grades 4, 5, 6.
- King, Charles F. The land we live in. Part II. p. 3-4.
The cultivation of rice in the United States. Grades 6, 7, 8.

- Kirby, Mary and Elizabeth. Aunt Martha's corner cupboard. p. 121-133.
Where and how grown. An excellent description. Grades 4, 5, 6.
- Krout, Mary H. Two girls in China. p. 44-45.
Method of preparing rice for the table. Grades 4, 5, 6.

FACTS TO BE REMEMBERED :

1. That rice requires a warm climate and moist soil.
2. That rice is eaten by more than half of the human race and is a staple food for more than a third.
3. That China produces the greatest quantity, the whole of which, however, is consumed by her people.
4. That the industry in China is carried on by crude and laborious methods but that on account of the cheapness of labor it is profitable.
5. That this grain is grown in China, Japan, India, Ceylon, Siam, Philippines, Hawaii, Italy, Egypt, Mexico, Brazil, and in some of the southern states in our own country.

2. *Tea :*

In beginning the discussion of this industry it would be well to have the children read or hear some of the pretty legends which are told in the tea countries of its origin. Mary Cate Smith in *Life in Asia*, p. 154, tells the one of the Indian saint. The one of the pious Buddhist and the sacrifice he made is told in Butterworth, *Traveller tales of China*, p. 206. These and others are given in greater detail in Cornaby, *A string of Chinese peach-stones*, p. 107-110. Aside from the interest these tales give they serve to illustrate the remoteness of the origin of the Chinese custom of tea drinking.

References describing the tea-shrub, its method of cultivation, and how the leaves are picked, prepared, and marketed should next be given. The teacher in her class discussions of these readings should see that the children are left with a clear notion that the tea-plant is really a cultivated wild shrub and evergreen, some three to five feet high ; that it grows best in a warm, moist climate ; that there are three or four gatherings of the leaves each year ; that its flavor and superior qualities are due to the roasting which the leaves receive immediately after they are picked, which accounts for the difference between the black and green tea of the markets ; and that the cured leaves are either packed for shipment into boxes lined with a sort of sheet lead to keep out the moisture, or else are pressed into "bricks" for the Russian trade. In this last connection have the children read Butterworth's curious "Tale of caravan tea," in *Traveller tales of China*, p. 214-219.

It should be brought out in the discussions that tea raising in China is a garden culture, the work being done by hand. In Ceylon and India, on the other hand, there are plantations of hundreds of thousands of acres where machinery of the most modern kind is used. The effect on the cost of production should be discussed and the question asked : "How is China's aversion to modern methods affecting her tea trade ?" As a matter of fact, in recent years her tea trade has been

greatly reduced on account of the competition of these countries. (See Adams, *Commercial geography*, p. 417.)

At this point it would be well to take a wider view and learn something of the magnitude of the world's demand for tea and what countries are engaged in its production. After discussing this point the children should make an outline map of the world and shade in the tea producing regions. These consist in the main of certain regions of China, Japan, India, Ceylon, Java, and Natal in Africa.

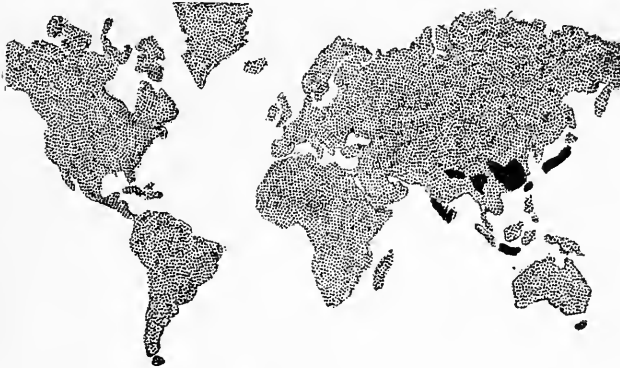


FIG. 5. SHOWING THE TEA PRODUCING REGIONS OF THE WORLD.

- Ball, John D. *Things Chinese*. p. 583-597.
An exhaustive account. For the teacher.
- Beal, E. A. *Information reader*. No. I., p. 252-255.
A short description of the production of tea and the history of its introduction into Europe. Grades 5, 6, 7.
- Butterworth, Hezekiah. *Traveller tales of China*. p. 204-219.
The legendary origin of tea. The description of the plant, how the tea is gathered and cured, and the Chinese mode of making and drinking the beverage. Also gives an interesting tale of "caravan tea."
- Carpenter, Frank G. *Asia*. p. 148-150.
The preparation of the tea for the market. Illustrated. Grades 5, 6, 7.
- Cornaby, W. A. *A string of Chinese peach stones*. p. 107-111.
Legends of the origin of tea and tea drinking. Grades 7, 8.
- Eggleston, E. E. *Stories of American life*. p. 31-37.
Tea in colonial days in our own country.
- Ford, John D. *An American cruiser in the East*. p. 354-355.
The industries of rice and tea.
- George, Marian. *Little journeys to China and Japan*. p. 84-86.
Legend of the origin of tea. How grown and where. Grades 4, 5, 6.
- Kirby, M. and E. *Aunt Martha's corner cupboard*. p. 45-60.
An unusually good story of tea. Grades 4, 5, 6.
- Krout, Mary H. *Two girls in China*. p. 67-68 ; 198-203.
Chinese method of making tea. Tea tasting, the climate required for tea raising, picking tea, curing it, and packing described. Illustrated. Grades 4, 5, 6.

- Little, Mrs. Archibald. *Intimate China.* p. 298-301. Grades 7, 8.
The decline of the industry.
- Morse, Edward S. *Glimpses of China and Chinese homes.* p. 16-18. Grades 5, 6, 7.
A description of a Chinese tea-house.
- Phillips, E. C. *Peeps into China.* p. 89-97. Grades 5, 6, 7.
How it grows, how it is gathered and prepared for the market.
- Pratt, Mara. *Stories of China.* p. 51-60. Grades 5, 6, 7.
An excellent and detailed account of its cultivation and preparation for market.
- Scidmore, E. R. *China : the long-lived empire.* p. 365-376. Grades 6, 7, 8.
A detailed description.
- Smith, Mary Cate. *Life in Asia.* p. 151-154. Grades 5, 6, 7.
The shrub, the process of cultivating it, the sorting and packing. A pretty legend of the origin of tea.

FACTS TO BE REMEMBERED :

1. That China has been and is still the greatest tea producing country of the world.
 2. That the methods she employs in the production of tea are crude and laborious and therefore costly.
 3. That Ceylon and India are fast rivalling her in the trade because they are raising it on a large enough scale to warrant the introduction of labor saving machinery.
 4. That the tea industry of China gives labor to millions of her people.
 5. That her tea was one of the two great instrumentalities in opening the doors of China to foreign trade.
 6. That besides China, Ceylon, and India, tea is grown in Japan, Java, and Natal in Africa.
3. *Silk :*

Sericulture is an industry which is common to many countries. But since China was the home of the industry and since she produces almost as much as all the other countries put together, the children in their study should associate the industry particularly with China.

For the sake of interest and also to give the children an idea of the great antiquity of this industry the teacher should either read or tell them the story of the discovery of silk by an ancient Chinese empress who is to this day gratefully spoken of by the Chinese people as "The Goddess of the silk worm." This story is given by Mary Cate Smith in *Life in Asia*, p. 154-155.

The life history of the silk worm should next be taken up. How the eggs are laid ; how they are hatched ; how the young worms are fed ; how they spin their cocoons and then are killed ; and then how the silk fibres are reeled off into threads and these threads woven into cloth, are all points

which are covered by the references accessible to both teacher and pupil and should be discussed by both in class.

The spread of the industry from China to Japan, India, Italy, France, and the other countries will give the children an idea of the magnitude and value of this industry. It will also give the teacher a further opportunity to impress the children with the non-progressiveness of Chinese ways when they compare her methods of producing silk with those employed in other countries. In this connection the story of how China jealously guarded the secret of silk production—death was the penalty for betrayal of the secret—and how it was stolen by western Asia and Europe should be related. This story is given by Mary Cate Smith in *Life in Asia*, p. 155-156, and by Chase and Clow, *Stories of industry*, Vol. II, p. 49-50. The silk producing regions already mentioned should now be located on the map.



FIG. 6. SHOWING THE SILK REGIONS OF THE WORLD.

It should be pointed out that since so much hand labor in rearing and feeding the worms and in reeling the silk is required, and since labor is so cheap in China no nation can seriously compete with her in this industry. It is on account of the high wages demanded by laborers in the United States that raw silk will never be extensively produced here. Although the United States produces very little raw silk it leads all other nations in its manufacture of silk goods. In consequence it is the largest importer of the raw article in the world. In 1900 it imported nearly \$45,000,000 worth, two thirds of which came from China and Japan.

For other references to children's reading see the following :

Andrews, Jane. Seven little sisters. p. 69-70.

About the mulberry trees, the cocoons, and the spinning.

Grades 3, 4, 5.

Andrews, Jane. Each and all. p. 91-95.

The story of silk.

Grades 3, 4, 5.

Ball, John D. Things Chinese. p. 523-530.

The origin, care, and culture of the worms. The quantity produced.
For teacher.

Carpenter, Frank G. Asia. p. 150-152.

The care of the worms, how they spin the silk, and the reeling and weaving of the threads. Grades 5, 6, 7.

Chase and Clow. Stories of industry. p. 49-58.

An unusually good description of the production and manufacture of silk. Illustrated. Grades 4, 5, 6.

Clifford, Warren. Information reader. No. II., p. 19-29.

History. Treatment and value of the industry. Grades 6, 7, 8.

Companion series. Talks about animals. p. 144-149.

The makers of silk.

Little, Mrs. Archibald. The land of the blue gown. p. 32-35; 63.

How the silk is spun. A picture of silk weaving. Grades 7, 8.

Smith, Mary Cate. Life in Asia. p. 154-156.

The story of the discovery of silk. The care given the worms. The way in which other countries obtained the possession of the Chinese secret of silk. Grades 5, 6, 7.

FACTS TO BE REMEMBERED :

1. That silk was discovered in China many centuries before Christ.
2. That the industry spread from China to regions of Japan, India, Italy, France, and the United States.
3. That silk and tea were the two great instrumentalities in opening the ports of China to foreign trade.
4. That China leads the world in its production of raw silk.
5. That the United States is the greatest manufacturer of silk goods and importer of raw silk in the world.
6. Children must be able to shade in an outline map of the world showing the regions of raw silk.

A Study of China Proper in its Physiographical Aspect.

As a basis for the study of the physiographical aspect of China, a basis which should be established before this work of explanation is ever begun, the teacher will recall that the children have a feeling for the density of the population along the coast and the waterways of the interior, (See lesson unit II); they have learned that the inhabitants of these regions are largely engaged in agricultural pursuits, (See lesson unit II); they know in a concrete way that the soil of these plains and river valleys is fertile and very productive, (See lesson unit III); they have gotten through their reading many vivid mental pictures of the suffering and loss of life caused by floods and famines, (See lesson unit II); and they know that certain regions are best adapted to tea raising, that rice grows best in other regions, while the spinning and weaving of silk employs the undivided labors of the population in still other regions, (See lesson unit V). These facts and feelings which constitute the essentials on the descriptive side have been so presented, through the organized reading of traveller's tales, stories of adventure, and descriptions, and clinched by class discussion under the purposeful direction of the teacher, as to build up in the child's mind a wealth of pictures, and associations; of facts and feelings. We have now reached, in our presentation, the proper and natural place for the questions, "How?" and "Why?"

We have already pointed out in a previous discussion of this question that it no longer suffices to learn that China has regions the most densely populated in the world; nor is it enough to learn that the inhabitants are subject to cataclysms by flood and famine. The children must with these descriptions get a conception of the forces, industrial, physical, and social, which make these regions the regions they are. It will not do merely to describe the earth's physical features; their operations must be explained. But this explanation must, we emphasize, come after a thorough basis of pictures, of feelings, of associations has been laid. After this apperceptive basis has been built such questions as the following: Why is the population of China congested along the coast and the rivers? How can one account for the fertility of the soil in these districts? Why are certain areas subject to such frequent floods and famines? and others of a similar nature which the popular mind considers important should be asked and their answers worked out. Any reversal of this order of presentation will result in abstract speculation which to the child is in no wise related to fact or reality for facts and realities he will not have had.



With these questions in mind concerning the reasons for the various social and physical phenomena which the children have observed by means of their reading, let us turn to the physical map of Eurasia in Tarr and McMurry's *Complete geography*, Fig. 407, or to any similar map.

On the map approximate the boundaries of China proper. (See formal geography). Note that the surface of this region is divided into two nearly

equal areas by the Yang-tse-kiang or Blue river ; that the southern area consists of a complicated system of low mountains trending in the main east and west ; that the northern area is also mountainous but that there is a large region of low plains in the extreme northeast reaching to the coast,

Tracing the Yang-tse-kiang back to its sources the children will see that it collects its waters from many tributaries draining a wide area which fact lessens the violence of its floods. By examining its lower course several lakes are observable into which the river spreads. This fringe of lakes still further moderates the floods. In sharp contrast to these conditions are those which prevail in the region of the Hoang-ho.

The children have already learned from their reading that the region traversed by the Hoang-ho is a fertile, alluvial region ; that it is the most densely populated region in the world ; and that thousands of lives are lost every few years through its overflow. If on the map referred to above the children compare the course of the Hoang-ho with that of the Yang-tse-kiang they will see that the Hoang-ho has few tributaries ; that it has no similar fringe of lakes to conserve the waters, and that it plunges abruptly from a high elevation to a very low plain. This explains in a simple way the reasons for the statements the children have read that the Hoang-ho is a shallow torrent ; that it frequently changes its mouth, sometimes 300 miles ; and why the wretched people along its banks call it "China's sorrow." It also explains the great fertility of the soil in this region, for as the waters spread out over the broad delta and flood plain, it deposits rich sediment which adds greatly to the productiveness of the soil. This in turn determines the nature of the occupation of the people who inhabit these plains. When we contrast the drier, less fertile, and more rugged regions of the interior with these fertile and well-watered plains, the children will have no difficulty in understanding why the population is sparse in the uplands and congested in the lowlands.

At this point the children should take a wider view for the purpose of determining the place China takes in the larger physiographic features of the continent. This view can be gotten by a further examination of the same map. In discussing this point lead the children to see that the huge  shaped plateau of Asia throws off rivers toward the northwest, toward the south, and toward the east. By a closer examination of the map lead the children to see that the drainage systems of Asia are either oceanic or inland. Now have the children observe that the Chinese empire lies almost wholly in the angle of the  ; that its slope is toward the east ; and that it constitutes, together with Siam on the south and the Amur on the north, the Pacific drainage belt of the continent of Asia.

We have now considered the slope of China, its drainage system, its soil, and the place it occupies, structurally, in the continent of Asia to explain what the children have already learned through their reading and discussions and for the further purpose of giving them some insight into the working of physical forces in a large way. Let us now consider the climate,

the winds, and the rainfall of China and likewise China's place in the larger meteorological movements of the continent as a whole.

Turn to the same physical relief map. Observe, first, that the continent of Asia extends from the Arctic region on the north nearly to the equator on the south, and that in consequence the climate must be one of extremes, *i. e.* extremes of cold in the north and of heat in the south. Observing the Siberian region the children will see that because of the absence of a range of mountains trending east and west there is no obstacle to the passage of icy winds southward. This causes the summer frosts of Siberia and the very cold winters of Peking, which lies in the latitude of Rome.

Again, observe that the Himalaya mountains and the Central plateau, extending east and west, is an effective obstacle in the way of the passage of the warm rain winds from the Indian ocean. Hence, in the western part of the Chinese Empire are to be found the deserts of Tibet and Gobi. Point out, however, that this high plateau does not extend far enough east to block the ocean winds from China proper. In reality China proper lies in the monsoon area of Asia. Its humidity depends on the southeast monsoon which blow inland from the ocean during the summer, and in the opposite direction during the winter. This change in direction gives China her dry, cold winters and her warm, moist summers. Besides maintaining the health and energy of the people these cold winds from the northwest blow in a fine, rich dust which settles over great areas of China, in some regions to the depth of hundreds of feet, forming the finest kind of soil for agricultural purposes. This change from the summer to the winter monsoon is not altogether good, for it gives rise to fierce and disastrous storms off the coast of China called typhoons, which makes the navigation off the southeast coast exceptionally dangerous. At this point the teacher, if working with the upper grades, should take up the subject of the monsoon and see to it that her children have a clear understanding of the forces involved in producing this change in the direction of the prevailing winds. In Tarr and McMurry's *Complete geography*, p. 229-231, or in any good physical geography, the teacher will find a good explanation of this subject.

The points in the explanation which should be clearly presented are :

1. That the land gets warm and cools off quicker than the water. Show this by a simple experiment. Take a pan of sand and one of water. Take the temperature of each at a given time. Put both on a hot stove. Record the temperature of each at intervals for fifteen minutes. Take both pans off the stove and set together in a cool place. Continue recording the temperature of each every few minutes until one has reached the starting point. Examine the records and the conclusion will be obvious that the land gets warm and cools off more quickly than the water.

2. That the land, when it becomes warm, warms the air above it, which expands and grows light ; but the air over the water remains comparatively cool, thus the equilibrium of the air is disturbed and a flow of cool air inland results.

3. That the larger the continent the greater will be the difference in temperature between itself and the surrounding water, hence the greater the force of the air flow.

4. That in the monsoon regions of Asia, during the winter the heavy air over the cold land presses outward beneath the warmer air of the ocean. The consequence is, a prevailing dry, cold wind blows from the land toward the sea. In the summer the land becomes heated, the cool air from the water flows in bringing with it moisture, which being precipitated on the slopes gives southeastern Asia her rainy season.

For further experiments to be given in connection with air movements, and also for many helpful suggestions in the treatment of this physiological aspect see Miss Effie B. McFadden's article, "The special method of physical geography," in Bulletin No. 2, chap. V.

FACTS TO BE REMEMBERED:

1. That the rich soil of the plains of China is due in part to the sediment deposited by the overflow of the rivers and in part to the fertile "loess," or dust blown in by the winter winds.

2. That the Hoang-ho overflows its banks because, unlike the Yang-tse-kiang, it lacks (1) many tributaries, (2) a fringe of lakes to divert its waters, (3) it has a more abrupt descent into its plain.

3. That the fact that China lies in the region of the monsoon explains why she has (1) a warm, moist summer, (2) a dry, cold winter, (3) destructive typhoons off the southeastern coast.

4. That the population of China has crowded into the plains, (1) because of the fertility of the soil, (2) because of the adequacy of the rainfall of the region, (3) because of its temperate and healthful climate.

Best Books for Supplementary Reading on China.

* Procure these first :

- Adams, Cyrus C. An elementary commercial geography. 1902. Appleton. \$1.10.
The author has attempted to give a view of the world in its relation to man as a producer and a trader. In my judgment the best book of the kind published. Every teacher at least should have a copy.
Grade 8 and teacher.
- Adams, Cyrus C. A text book of commercial geography. 1902. Appleton. \$1.30.
An excellent hand-book for teacher on the commercial aspect of the several nations of the world. Best brief treatment of the kind published.
For teacher.
- * Andrews, Jane. The seven little sisters. 1899. Ginn. 50 c.
A classic of its kind. Should be in every library. Grades 3, 4, 5.
- * Andrews, Jane. Each and all. 1893. Ginn. 50 c.
Deserves a place in every school library. Grades 3, 4, 5.
- Atherton, Edward. The adventures of Marco Polo. 1902. Appleton. 65 c.
His journey to China, and his life in the empire. The sights and scenes which he saw during his sojourn. Carefully edited.
Grades 6, 7, 8.
- Ball, J. Dyer. Things Chinese. Scribner. \$5.00.
Information regarding China arranged in encyclopædic form. Authentic. Good for reference purposes.
- Ballou, Maturin M. Footprints of travel. 1896. Ginn. 60 c..
An interesting account of the customs, characteristics, and peculiarities of the Chinese people. Grades 7, 8.
- Beal, E. A. Information reader. Boston School Supply Co. 60 c.
Much valuable information in this series of four books, "Foods and beverages," "Everyday occupations," "Man and materials," and "Modern industries and commerce." Grades 6, 7, 8.
- Bryson, Mrs. M. I. Home life in China. Am. Tract Soc. \$1.00.
Interesting description of customs and ways of the people. Writer shows that she has an intimate acquaintance with the Chinese family.
Grades 6, 7, 8.
- * Butterworth, Hezekiah. Traveller tales of China. [c. 1901.] Estes. \$1.50.
A collection of interesting stories, well illustrated, which treat of characteristic traits of the Chinese people. Grades 6, 7, 8.
- * Carpenter, Frank G. Asia. [Geographical reader.] [c. 1897.] Am. Bk. Co. 60 c.
A trip through Japan, China, India, and Turkey, describing the life of the people, the government, and the educational systems of the countries. The most satisfactory series of geography readers yet published. Well illustrated. Grades 5, 6, 7.

- Chase, A., and Clow, E. Stories of industry. [c. 1891.] Ed. Pub. Co. 40c.
Stories of various industries written for children. Among them the
story of silk in vol. II. Grades 5, 6, 7.
- * Chamberlain, J. F. How we are fed. 1903. Macmillan. 40c.
Excellent description of the foods which we commonly eat.
Grades 5, 6, 7.
- Clifford, H. W. The information reader, No. II. 1900. Boston School
Supply Co. 60c.
Popular accounts of everyday occupations. Several chapters on silk.
Grades 6, 7, 8.
- Colquhoun, Ethel. Two on their travels. 1902. Barnes. \$2.50.
Entertaining sketches of people the writer met on a journey through
the Malay region, Java, Borneo, Philippines, Japan, Korea, and the
Amur. Much interesting material. Well illustrated. Grades 7, 8.
- * Companion Series. By land and sea. 1901. Perry Mason. 50c.
Several good articles describing scenes on the streets and in the homes
of China. Grades 6, 7, 8.
- * Companion Series. The wide world. 1902. Ginn. 25c.
Graphic pictures of ways of living in different parts of the world,
presented in a brief but pleasing way. Treats of China, Japan,
Egypt, Italy, Russia, Mexico, and Alaska. Grades 5, 6.
- Cornaby, W. A. A string of Chinese peach-stones. 1895. Kelly, London.
A great deal of valuable and interesting material, but too diffuse to be
of value except to the teacher.
- Del Mar, Walter. Around the world through Japan. 1902. Macmillan.
\$3.00.
A very readable book, full of interesting information. Treats of
Ceylon, Java, Malay region, Japan, Hawaii, California, United States,
with six chapters on China. Grade 8 and teacher.
- Eyster, Mrs. Nellie B. A Chinese Quaker. (Fiction.) Revell. \$1.50.
All the principal characters and extraordinary events are real. The
scene is laid in or near San Francisco, but shifts back and forth be-
tween America and China.
- * Fielde, Adele M. A corner of Cathay. 1894. Macmillan. \$2.40.
An excellent account of the customs, habits, and traits of the Chi-
nese by a writer who lived among these people for many years.
Grades 7, 8.
- Ford, John D. An American cruiser in the East. 1898. Barnes. \$2.50.
Describes the manners and customs of the Chinese. Treats also of
Koreans. Very good. Many illustrations. Grades 7, 8.
- French, H. W. Our boys in China. 1899. International book and pub-
lishing Co.
Descriptions of sights and scenes in China. Contains some good ma-
terial, but very diffuse. Grades 7, 8.
- * George, Marian M. Little journeys to China and Japan. [c. 1901.] Flan-
agan. 50c.
An excellent book for children of the 4, 5, and 6th grades.
- * Headland, Isaac T. The Chinese boy and girl. [c. 1901.] Revell. \$1.00.
The nursery and its rhymes; children and child life; games played
by boys and girls; the toys they use; children's entertainments; and
the stories that are told the children.

The teacher of the primary grades can charm the children and at the same time give them valuable information about the ways of those of their own age in China by drawing on the material given in this book. For teacher.

- * Headland, Isaac T. Chinese Mother Goose rhymes. [c. 1900.] Revell. \$1.25.

One never realizes how near akin our own babies are to the babies of China until he has read these rhymes and jingles which Chinese mothers chant to their children. Beautifully illustrated. Well worth the getting. Grades 1, 2, 3 and older people.

- * Holcombe, Chester. The real Chinaman. 1895. Dodd. \$2.00.
One of the best books for both children and teacher written on China. Full of incidents which explain many of the characteristics of the Chinese people. The writer was for many years secretary of the American legation at Peking.

- King, Chas. F. The land we live in. [Picturesque geographical readers, Bk. IV.] 1894. Lee. 56 c.

Treats of rice raising in the United States. Grades 6, 7, 8.

- Kirby, Mary and Elizabeth. Aunt Martha's corner cupboard. Ed. Pub. Co. 30 c.

The story of tea, sugar, coffee, salt, currants, rice, and honey.

Grades, 5, 6, 7.

- Knox, T. W. The boy travellers : Japan and China. 1902. Harper. \$2.00.
Excellent descriptions of the manners, customs, and characteristics of Chinese people. Illustrated. Grades 6, 7, 8.

- * Krout, Mary H. Two girls in China. [c. 1903.] Am. Bk. Co. 45 c.
Excellent account of the sights and customs of China. Illustrated.

Grades 4, 5, 6.

- * Lee, Yan Phou. When I was a boy in China. [c. 1887.] Lothrop. 60c.
Excellent description of the home life by a native of China.

Grades 6, 7, 8.

- Little, Mrs. Archibald. Intimate China. 1901. Lippincott. \$2.00.
An interesting account of China and the Chinese by a writer who lived among the people many years. Well illustrated.

Grades 7, 8, and teacher.

- Little, Mrs. Archibald. The land of the blue gown. [1902.] T. Fisher Unwin, London.

The picturesque features and the mediæval usages of the Chinese portrayed. A wealth of good material illustrated by beautiful pictures.

Grades 7, 8, and teacher.

- Loti, Pierre. The last days of Peking. 1902. Little. \$1.75.
A vivid picture of the writer's experience in China. Illustrated.

Grades 7, 8.

- Lyde, L. W. A geography of Asia. 1900. Black, London. 1 shilling.
A succinct statement of the most important facts, industrial, physical, and structural, of the continent of Asia. An excellent hand-book for the teacher.

- Martin, W. A. P. A cycle of Cathay. 1900. Revell. \$2.00.
Political life and the course of Chinese diplomacy predominates. Not as useful to the geography teacher as many less expensive.

- Martin, W. A. P. *The lore of Cathay.* 1901. Revell. \$2.50.
The author has set himself the task of picturing the intellectual life of the Chinese people. It is a scholarly work, valuable to the teacher as a reference book, but entirely beyond the comprehension of the children.
- * Miller, Olive T. *Little people of Asia.* 1899. Dutton. \$2.50.
Tells of the games, customs, dresses, etc., of the babies of Turkey, Syria, Persia, India, Siam, China, and Japan. Excellent book for the geography teacher. Grades 5, 6.
- * Miln, Louise J. *Little folk of many lands.* 1902. Scribner. \$4.00.
A delightfully written book about the children of many countries. A chapter on the children of China. Illustrated. Grades 5, 6, 7.
- * Morris, Charles. *Historical tales: Japan and China.* 1898. Lippincott. \$1.00.
Some very interesting stories pertaining to the history of China. Told for the children. Grades 7, 8.
- Morse, Edward S. *Glimpses of China and Chinese homes.* 1902. Little. \$1.50.
Describes in an interesting manner the Chinese home, dinner, theater, prison, temples, and mansions. Illustrated. Grades 6, 7, 8.
- * Miller, Mary. *The story of Wretched Flea, a little Chinese boy.* Flanagan. 35 c.
How Flea got his name — his games — the choosing of his wife — stories told him by his mother — experiences at school — on the tea farm — and the taking of his degrees, all told in a simple yet interesting way. Grades 2, 3, 4.
- Palmer, Bertha. *Stories from the classic literature of many nations.* 1898. Macmillan. \$1.25.
Some good stories from Chinese literature.
- Parsons, Wm. B. *An American engineer in China.* [c. 1900.] McClure. \$1.50.
A valuable little book especially for the teacher, though children of grades 7 and 8 can read several chapters with understanding. It presents China and the Chinese from the standpoint of industrial development.
- Phillips, E. C. *Peeps into China.* [The world in pictures.] Cassell. 75 c.
Written for children. Describes the country and the customs of the people. Illustrated. Grades 5, 6, 7.
- * Pratt, Mara L. *Stories of China.* [Peoples and places here and there vol. IV.] [c. 1892.] Ed. Pub. Co. Cloth 60 c.
Excellent for lower grade children. Chinese history; Tae-Ping rebellion; farming; fishing; customs; schools; great wall. Grades, 4, 5, 6.
- Richards, Laura E. *Chop-Chin and the golden dragon.* [c. 1899.] Little. 50c.
A pretty story for the little folks, of the little son of the court sweeper who saved his father from the wrath of a cruel emperor. Grades 2, 3, 4.
- Rupert, Wm. R. *A geographical reader.* [c. 1894.] Leach. 65 c.
Some interesting facts about China and the Chinese. Grades 7, 8.

- Scidmore, Eliza R. China : the long-lived empire. Century. \$2.50.
A collection of valuable and entertaining articles. Grades 7, 8.
- Shaw, Edward R. Big people and little people of other lands. [c. 1900.]
Am. Bk. Co. 50c.
A chapter on China. Told in simple language. Illustrated.
Grades 2, 3, 4.
- * Smith, A. H. Chinese characteristics. [c. 1894.] Revell. \$2.00.
A very carefully written account of the traits of the Chinese. Gives
a great many concrete details of their manners and customs, and
their ideals—social and political. Generally recognized by writers
on China as the best character sketch of the Chinese yet written.
Can be read by 8th grade.
- Smith, A. H. Village life in China. [c. 1899.] Revell. \$2.00
A valuable and authoritative treatment. Of great interest because of
its many concrete incidents. Grades 7, 8, and teacher.
- * Smith, Mary Cate. Life in Asia. [World and its people, Bk. VI.] 1900.
Silver. 60c.
Several interesting chapters on China and its people. Treats of other
regions of Asia. Simple, readable style. Should be in every school
library. Grades 6, 7, 8.
- Starr, Frederick. Strange peoples. [Ethno-geographic reader, No. 1.]
1901. Heath. 40c.
Description of the habits, customs, and characteristics of the people
of many lands. Illustrated. Grades 5, 6, 7.
- Stoddard, John L. Lectures, vol. III. [c. 1897.] Shuman.
Valuable for the fine pictures. The descriptive part is interesting and
instructive. The set of twelve volumes is well worth the price to any
well furnished library. Grades 7, 8.
- Tarr, R. S. and McMurry, F. M. A complete geography. 1902. Mac-
millan. \$1.00.
Principal facts given, but relatively not much reading. Good maps
and pictures. For teacher.
- Trotter, Spencer. Geography of commerce. 1903. Macmillan. \$1.10.
An excellent reference book for the teacher. Packed full of up to
date information of an industrial character.
- * Van Bergen, R. The story of China. [c. 1901.] Am. Bk. Co. 60c.
A book written for young people, but the information it contains is
interesting to older people as well. The only book I know which
gives a clear statement which children can understand of British and
Russian contentions in China. Grades 6, 7, 8.
- Wilson, J. H. China ; or Travels and adventures in the "Middle Kingdom."
1901. Appleton. \$1.75.
A study of its civilization and possibilities, together with an account
of the Boxer war, the relief of the legations, and the re-establishment
of peace. Valuable information for the teacher, but not interesting
to children.

West Coast Printing Company  921 Broadway, Oakland, Cal.

A TEACHERS' HANDBOOK

IN

GEOGRAPHY

PART I

NORTH AND SOUTH AMERICA

BY

WALTER J. KENYON

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SAN FRANCISCO

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THE TEXT-BOOK AND THE TEACHER.

THE real problem in our geography teaching is now, as it always has been, how to incorporate the text-book in our scheme so that it shall prove a helpful factor rather than a limitation and a handicap. The notion is happily obsolete that a teacher plus a text-book constitute the conditions for a geography course. Every teacher nowadays appreciates, to her sorrow, the abysmal hiatus between the text-book in geography and the specific needs of the geography lesson.

The radical expedient of dispensing altogether with the text-book is sometimes attempted, under especially favorable conditions such as obtain in some normal schools and colleges. But none of these departures has ever proved itself adequate, to the satisfaction of schoolmen at large, in the matters of scope and continuity. We are learning to regard coldly the sporadic schemes whose application calls for special conditions, among the latter being an ideal teacher, an ideal pupil, and a made-to-order environment. Those whose vocation lies in the shaping of material for teaching cannot realize too keenly that their real audience must for all time be the average teacher, toiling in average surroundings. Laying theories aside and addressing ourselves to the actual conditions, we find a vast herd of teachers doing what little they can for a vaster herd of pupils, under circumstances which, in the cities at least, could not readily be worse. And the future holds forth no promise that this herding aspect will be materially modified. In the light of these things the much abused text-book, be its failings what they may, is an indispensable boon to the grade teacher, and might well prove a safeguard in the experimentation higher up.

The limitations of the text-book are defined in its name—*text*: something to be elaborated, developed, worked out. The material included is a geography course in a potential sense only. Every text-book author is mindful of this limitation of his work. And he devotes certain captions, chapters, or appendices to the outlining of collateral material which he hopes will be utilized by the user of the text. The author thus makes a definite requisition for a collaborator whose duty it shall be to develop the text into material suitable for lesson-giving.

By general consent this task of collaboration has heretofore fallen to the grade teacher. And it is at this point, I think, that we shall find the fundamental weak spot in our teaching of geography. This may be said without

libel upon either the attainments, the industry, or the professional spirit of the grade teacher. Ordinarily she is without the time, training, or facilities for the elaboration, in any broad sense, of lesson material. We must in the long run give the grade teacher her due. In the economy of teaching she is not logically a producer, but a distributor. And we must come to regard the distributor as a special worker, open to all honor of calling and entitled to every labor-saving device and special help which her guild can bring to her service. The day is past when any workman can profitably shape his own tools. And having once accepted the grade teacher in this obvious light, it is evident that the hiatus between the text-book and the lesson must be bridged by a third party. It is in this conception that the present scheme in geography finds its reason for being.

FORMAL, DESCRIPTIVE, AND PHYSICAL GEOGRAPHY.

As the appended scheme is meant as an aid to the teacher in the use of the state text-books in geography, it aims to meet these texts in content, but not necessarily in arrangement. And to remedy certain changes in the sequence of topics, each one is referred by page to the corresponding topic in each of the text-books.

Formal geography.

To the usual heads of physical and descriptive geography, a third caption, formal geography, has been added. As this is either an innovation or a retrogression, according to one's viewpoint, a word of explanation is needed. The practice in the later text-books is to minimize, or even to omit, the "map exercises" which formed a feature of the old-time text-books. In their stead a few map questions are scattered here and there through the descriptive text, in a purely incidental relation. And there appears to have been no particular basis for the selection and arrangement of these questions. If they were segregated into a list by themselves, that list would be seen to fall short of including the essentials of formal geography, and it would, on the other hand, include some material which is distinctly unessential. The authors therefore have evidently aimed to be inspirational and suggestive, rather than systematic and inclusive. These map questions which they intersperse through the descriptive text are, furthermore, not purely search questions, but thought, or inference, questions as well, thus combining formal and cultural qualities (*cite* T. & McM., *Home Geog.*, p. 199; Redway & Hinman, *Adv.*, p. 108).

All this is agreeable to the psychologic law of association, whereby new facts are taught as the pupil currently has need of them. Says Frye, for example (p. 90, *Adv. Geog.*): "The best time to fix in memory the location of a place is *when learning some important or interesting fact about it*. The mind is then active toward the particular place, and can therefore memorize

with less effort. For this reason teachers should train pupils to the habit of looking up the location of each city, state, country, or natural feature as its name occurs in the text." It can be argued on the contrary, however, that the pupil most economically acquires his formal facts through the exercise of an undivided attention. And this idea certainly underlies all of our drill work, whether in spelling, arithmetic, geography, or penmanship.

We may, however, evade this slippery psychological debate, since a segregated formal geography course finds its justification in purely empirical reasons. However seductive the correlationist finds his theory, it does not stand the test of actual teaching. The graduates of our public schools notoriously and universally do not know their formal geography. If the college or normal school desires that its freshman shall know the location of Chicago or Paris on the map, the fact must be taught then and there, as if planted in virgin soil. This particular deficiency can be referred directly to the later methods of geography teaching, wherein the locative work has been made incidental to the descriptive. In teaching, as elsewhere, the incidental things are inevitably "lost in the shuffle." Every superintendent knows that if a subject or a phase of a subject is to be taught in a test-proof manner, it must be definitely prescribed, and given an inviolable place on the program. The question is therefore not so much psychological as executive; and the segregated drill in formal geography is amply justified on this ground.

In addition, however, to the separate course, it will be noted that the study of each region is immediately prefaced by the special formal geography of that region; and this special formal geography serves as a review of the separate course.

Descriptive geography.

In the appended treatment of descriptive geography two points are worthy of special remark. One is the complete abandonment of the "political" area as a unit of study, and the substitution of the "characteristic" area for it. Physiographers have employed this distinguishing term for the past twenty years, and it is now proving useful in the field of descriptive geography.

The older texts divided the earth's surface into its political areas, and the study proceeded upon this basis, regardless of whether the arbitrary political boundaries carried with them any significance worth while. The later texts disavow this method in theory, but utilize it in practice. For example, Brazil is a political area; but examined as a unit for study it proves to be an unwieldy group of regions which cannot with profit be studied together. The Brazilian plateau and the Amazon selvas have nothing in common except their political aspect, which is of a minor import. In topography, climate, inhabitants, life forms, and products they differ so widely as to make it impracticable to group them under one study head. On the other hand, we find the selvas not included in Brazil alone, but in Bolivia, Peru, Ecuador,

Colombia, and Venezuela as well. To study the selvas, then, by the method of the political area, we should have to make six fragmentary approaches to the subject, under the above captions. But now, if our unit of study is the characteristic area, we treat the selvas as one great homogeneous region, irrespective of political boundaries; while the Brazilian highlands receive a separate treatment as another such unit.

The value of this distinction can be tested in any part of the earth's surface. British America, for example, is a political area. But as a unit of study it proves hopelessly complex. The various regions of southern Canada merge identically with the corresponding ones on our side of the border into a wheat region, a Great Lake region, a Rocky Mountain region, and a maritime region, while farther north the Arctic provinces, with their Eskimos and icebergs, call for a wholly separate study.

Similarly the political area, Egypt, divides itself inevitably into two diverse regions, one of which is the desert, integrally a portion of the Sahara, while the other is the Nile strip, an entity in itself, not logically to be merged in any of its aspects with the other.

Only in Europe do the political areas appear to coincide in any degree with the characteristic areas and thus become available as units of study. And this is partly because in these countries their social and political aspects are not only of dominating importance, but they group themselves, in the main, with the topography. Thus Scandinavia is clearly a study unit, in any and all of its phases separate and distinct from neighboring areas. And this is seen to be equally true, so far as elementary study is concerned, of Holland, the British Isles, the Iberian peninsula, Russia, and Switzerland.

The appended plan for the teaching of descriptive geography is based upon this distinction. The old device of the political area is laid aside and the division into characteristic areas is followed throughout. Curiously enough the world's surface divides itself into just fifty of these areas, or regions:

The World's Characteristic Areas.

Arctic America,	Spanish South,
Alaska,	West Indies,
Southern Canada,	Northern South America,
New England,	Amazon Region,
Middle Atlantic Seaboard,	La Plata Region,
Cotton Belt,	Brazilian Highlands,
Appalachian Region,	Patagonia,
Great Lake Region,	West Coast (South Am.),
Prairie Region,	High Andes,
Grazing Region,	Nile Region,
Plateau Region,	Barbary States,
Pacific Slope,	Sahara,

Central Africa,	Scandinavia (with Ice-
South Africa,	land and Denmark),
Australasia,	Russia (with Siberia),
South Sea Isles,	France (and Belgium),
Hawaiian Islands,	Holland,
Philippines,	Germany,
East Indies,	Austria-Hungary,
The Ocean,	Balkan States,
China,	Turkey,
Japan,	Greece,
India,	Italy,
Moslem Asia,	Spain (and Portugal),
Palestine,	Switzerland.
British Isles,	

It will be seen at once that some of these areas are well adapted for study in the lower grades, while others are better reserved for the later ones. In a general way we may say that the lower-grade work should present the spectacular, the panoramic, the wonder aspect, including the human interest where it is merely a matter of gaze and not a matter of reason. The third and fourth grade geography is filled with elephants and crocodiles, and slaves who carry ivory; with monkeys and screaming parrots; with dikes and windmills, and storks on the chimney; with people boring deep in the earth for treasure, and climbing snowpeaks for adventure's sake; and of lonely dog-teams, scudding over endless Arctic snows half-lighted by the shaking aurora. In the later work this wonder aspect must yet retain a place, but it gradually blends with the more significant phases of a human interest. The "Sunny South" is still sunny, and the darkies still sing on the plantation; but the relation of cotton to slavery, and to the war, suggests itself; and also on the old battle-fields a New South is rising, because she is building her own mills instead of paying high profits to those beyond her borders. Unless the upper-grade work gave some sort of outlook upon these economic aspects, it would be merely the beginnings over again; merely an amplified and highly colored Baedeker.

Viewed in this light, some of the earth's areas seem especially adapted for the beginning of the course in descriptive geography. The savage regions, such as Central Africa, the Amazon country, and Eskimo land, appeal mainly by their wonder aspect. But in France and Germany the other extreme is reached, where the spectacular has disappeared and given place to rather more intimate social studies. And midway between these contrasts fall such topics as Holland, Scandinavia, and China, rich in both sorts of material. Thus, in a very general way, the earth's characteristic areas strew themselves along the course of study, without, however, leaving any hard-and-fast lines, since the upper-grade work is not a substitution for, but a development of, the other. The suggested sequence of topics is as follows:

Course of Study by Regions.

THIRD YEAR.

Arctic America,
 Spanish South,
 Sahara Region,
 Amazon Region,
 Barbary States,
 Northern South America,
 China,
 West Indies,
 Holland,
 Andes Region,
 South Sea Isles,
 Alaska,
 Central Africa,
 Patagonia,
 Hawaiian Islands,
 Japan.

FOURTH YEAR.

Pacific Region (U. S.),
 East Indies,
 Cotton Belt (U. S.),
 Palestine,
 La Plata Region,
 Scandinavia,
 Brazilian Highlands,
 Nile Region,
 Switzerland,
 Grazing Region (U. S.),
 Turkey (European),
 West Coast (South Am.),
 Philippines,
 Australasia,
 Plateau Region (U. S.),
 India.

FIFTH YEAR.

Moslem Asia,
 Canada (Southern),
 Spain (and Portugal),
 South Africa,
 Review third-year topics.

SIXTH YEAR.

Greece,
 Appalachian Region (U. S.),
 The Ocean,
 Review fourth-year topics.

SEVENTH YEAR.

Lake Region (U. S.),
 Italy,
 New England,
 Russia (with Siberia),
 Prairie Region (U. S.),
 British Isles,
 Middle Atlantic Seaboard (U. S.),
 Review fifth and sixth-year topics.

EIGHTH YEAR.

Germany,
 Balkan States,
 France (and Belgium),
 Austria-Hungary,
 Review seventh-year topics,
 Economic zones,
 Race distribution.

The Lesson Units.

Having thus defined and approximately graded our areas for study, we set down for each a group of terse but descriptive statements which, collectively, seem to cover an ordinary cultural knowledge of the region. These statements, borrowing and somewhat adapting McMurry's term, are called *lesson units*. If these units are properly conceived and stated, they together

constitute an epitome, or brief, of the essential description of the region, involving all the information which is universal to ordinary culture and excluding all that is special. The lesson units of a region may thus be likened collectively to a rosebud, which contains, potentially, all the features of a matured flower, and is now to be unfolded to the fullness of its content. For example, here are the lesson units for a descriptive treatment of New England:

1. Here is the land of the Pilgrim fathers, and of literary fame. 2. New England has important fisheries, and Gloucester is the great fishing port. 3. The thin-soiled, rocky country affords poor farms but fine quarries, and the New England lakes and sea cliffs make famous summer resorts. 4. The lumber of Maine has built many ships. 5. The rivers have powerful falls, and manufacturing cities have grown up. 6. The indented sea-front affords good harbors, and Boston is upon one of them. 7. New England has crops of cranberries, maple sugar, and ice.

The units of a region once determined, each is taken up in order and made the basis of one or more lessons, according to its scope, and according to the grade in which it is taught. To this end the teacher familiarizes herself with all the available supplementary reading that pertains; and is thus not only equipped in subject-matter herself, but is in a position to economically direct a copious reading on the part of each pupil in the class. In the primary grades this reading, of course, is done almost entirely by the teacher, who thus becomes a source of information, and imparts the substance to her class in the form of conversational talks. In older grades, where the pupils are able to read genuinely descriptive material, the aspect of the lesson changes somewhat. The pupils contribute substantially to the discourse, the teacher merely keeping the helm and filling the gaps.

Besides giving back, orally, the descriptive material acquired, the pupils write little topical accounts, at the close of each unit. The teacher should examine these writings and make their errors in content and language a subject for correction in the next lesson.

The Selection of Supplementary Reading.

It would be quite without point to enlarge upon the usefulness of supplementary reading and go no farther. For service in the present scheme a fund of descriptive readings has been evolved which aims to exhaust the entire field of available reading. Again, it would be futile to mention merely the names of the books, for the tantalizing of busy grade teachers. Instead of this the books have been dissected page by page, and their content scattered in immediate juxtaposition to the topics of which they treat. The labor-saving value of this feature is at once apparent. The teacher finds, under each unit of each region, an ample fund of readings for both the pupils and herself. This enormous saving to her of labor and time makes possible the practical application of the supplementary reading method as it has never been possible before.

In making up the lists, three kinds of books have received a most careful consideration. The first of these includes all that class of books which may be called geography readers, whatever their titles may happen to be. The surpassing value of these books lies in the fact that they are readily divisible into assigned readings; they offer a minimum of unessential matter, and what is there is easily eliminated. Finally, their style of presentation is, in nearly every case, cleverly adapted to the abilities of young readers. Also the price is in every case so low that these books may be had by schools of the most limited means.

The second class listed are those books which, while closely pertinent to the subject, are too mature in their style for pupils' reading; many of them, also, are not easily articulated into separate readings. Wherever possible, however, they have been so articulated, in this treatment, for the teacher's sake, and altogether they constitute a highly useful fund of teachers' reference.

It was the original intention to include a third list, composed of juvenile books of adventure and travel. There is a soft spot in the adult heart for these volumes of beloved memory, and we are prone to concede them an atmosphere, local color, and action which would be highly enriching to the study of descriptive geography, but which indeed these books rarely possess. The characteristic movement of even the best of them is couched in an inconsequent form of dialogue (between Lucy and the governess, or between Bertie and the guide) which, on examination, has the consistency only of foam and leaves no precipitate. Again, their local color is not often a genuine local color, and their data are frequently independent of reality. Finally, they are quite incapable of division into topical readings, and so are debarred, on mechanical grounds, from any systematic use in the work of teaching. Their strong point is the appeal they make to the juvenile interest. These books may be said to afford a background for the work in descriptive geography, of which the geography readers constitute the foreground. On the whole it has been deemed best to omit a list of them, particularly as they are comparatively costly, and it is desirable to make the lists not too formidable in the vision of school treasurers.

In general, the books selected are low in price, recent in date, and easy of access. They may be said, as a whole, to be those which every public school should include in its working library.

COURSE IN FORMAL GEOGRAPHY.

In our own school this formal course is begun in the third school year, and it is ordinarily finished before the end of the fourth. Thereafter we recur to it frequently as review material for the upper grades, sandwiching sections of the formal course between the studies of the descriptive course.

THE GLOBE (First Course).

1. Place a globe in the hands of each pupil.* Hold a globe in your hand, and passing your finger over North America, pronounce the name, distinctly. Also write it on the blackboard. Have the children (*a*) point to North America as you give the name, and (*b*) give the name as you point to North America.

Repeat this with each continent and ocean.

Oral Spelling.

2. Write a list of these names learned, on the board. Have the pupils, in turn, stand, select a word, face the other way and spell it, smoothly and without hesitation.

Written Spelling.

3. Send the pupils to the blackboard and have them write the names learned, one at a time, at your dictation.

4. Furnish each pupil with a spelling slip. Point to each continent and ocean, in order, and have pupils write the names on their slips. In correcting these, afterward, carefully note the errors and make them the subject of a special lesson and test.

Concert Location.

5. Point to the continents and oceans on your globe, rapidly and at random, while the class, in concert, pronounce the respective names.

Test.

6. Name a continent or ocean and have a pupil come and point it out on your globe. The rest of the class watch critically, and correct, if need be. Repeat this with all the continents and oceans, until assured that each pupil is certain of each name and location.

Make this a rapid, bright exercise.

*There is a cheap six-inch globe, sold as low as three dollars per dozen, and well adapted for this part of the geography course. In our work here at the school we obliterate names and details by painting over the oceans and continents with oil colors. We paint the continents maroon and the oceans a whitish blue.—K.

Outline Map Test.

7. Using a list of the continents and oceans, proceed as in the foot-note.*

Direction on the Globe.

8. We live on North America. Mark the spot with a dot of chalk on your globe. Have the pupils do so on theirs.

"Draw your finger *eastward* on your globe." Suit action to word and have the children follow. Also—

"Draw your finger *westward*."

"Draw your finger *northward* and locate the North Pole."

"Draw your finger *southward* and locate the South Pole."

"What ocean is east of North America?"

"What ocean west?"

"What ocean east of South America?"

"What ocean west?"

"What ocean north of North America?"

"What ocean south of South America?"

Use a corresponding formula for each continent, firmly establishing the idea of cardinal points.

Review.

9. Review § 8 by reversing the question, viz.:

"What continents west of the Atlantic Ocean?"

"What continents east?" etc.

Use a similar formula with each ocean.

Oral Test.†

10. Pupils read these sentences from the blackboard, supplying the missing word.

1. The Pacific Ocean is — of North America.
2. The Pacific Ocean is — of South America.
3. The Atlantic Ocean is — of North America.
4. The Atlantic Ocean is — of South America.
5. The Arctic Ocean is — of North America.
6. The Arctic Ocean is — of Asia.
7. The Arctic Ocean is — of Europe.

**Outline Maps*—Throughout this course a frequent use is made of outline maps. The pupil may easily provide these for himself by laying a sheet of transparent paper over the text-book map and tracing the coast-lines and other features as may be required at the time. We are using for this purpose a paper called "onion weave." It is transparent, yet takes ink. We buy a ream, 17x22, and have it cut twice. This gives us four reams 8½x11, at a cost of \$1.25, or about thirteen sheets for a cent.

The pupils having thus made their tracings, the teacher prints on the blackboard a list of the geographical names occurring in the lesson. The pupils copy these names into their appropriate places on their outline maps. The teacher's printing must afford the pupil a model of neat lettering.

The pupil is to be taught to use at least two sizes of printing—a large size for great areas, such as oceans or continents, and a smaller size for cities. In marking a city he puts a dot, also, to show the exact location.

†When the pupil shows uncertainty, do not supply the word to him, but refresh the idea by presenting the globe. Remember that your whole purpose now is the visualizing of the map, not merely the acquiring of word formulas.

8. The Antarctic Ocean is — of South America.
9. The Antarctic Ocean is — of Africa.
10. The Antarctic Ocean is — of Australia.
11. The Pacific Ocean is — of Asia.
12. The Pacific Ocean is — of Australia.
13. The Indian Ocean is — of Asia.
14. The Indian Ocean is — of Africa.
15. The Indian Ocean is — of Australia.
16. The Pacific Ocean is — of the Arctic Ocean.
17. The Pacific Ocean is — of the Antarctic Ocean.
18. The Atlantic Ocean is — of the Arctic Ocean.
19. The Atlantic Ocean is — of the Antarctic Ocean.
20. The Indian Ocean is — of the Antarctic Ocean.
21. The — is the most northerly point of the earth.
22. The — is the most southerly point of the earth.

Written Test.

11. Pupils write these sentences from the blackboard, supplying the missing words.

1. — and — are west of the Atlantic Ocean.
2. — and — are east of the Atlantic Ocean.
3. — and — are east of the Pacific Ocean.
4. — and — are west of the Pacific Ocean.
5. The continents of —, — and — are south of the Arctic Ocean.
6. The continents of —, — and — are north of the Antarctic Ocean.
7. The — and — Oceans are south of the Arctic Ocean.
8. The —, — and — Oceans are north of the Antarctic Ocean.
9. — is west of the Indian Ocean.
10. — is north of the Indian Ocean.
11. — is southeast of the Indian Ocean.
12. — is south of the Indian Ocean.

Outline Map Review.

12. Repeat the map-filling test given in § 7.

Add, at the margins, the words North, South, East, and West in their appropriate places.

THE HEMISPHERES.

(Transition from globe to flat map.)

13. Have class open their text-books to the map of the hemispheres. Distribute the globes also.

“ Find the map of the Western Hemisphere. Turn your globe so that

the Western Hemisphere is toward you. What continents are in the Western Hemisphere?"

" Find the map of the Eastern Hemisphere. Turn your globe so that the Eastern Hemisphere is toward you. What continents are in the Eastern Hemisphere? What ocean is entirely in the Eastern Hemisphere? Name the oceans that lie partly in both hemispheres."

" Find the North Pole on the globe. Find it on the Western Hemisphere. Find it on the Eastern Hemisphere."

" Find the South Pole on each."

Reviews.

14. Sketch the hemispheres, with their continents, in outline, on the blackboard, but omit names. Use this map in the following group of games:

15. Point out the continents, oceans, and poles at random, and have class give the respective names, in chorus.

16. Call on the pupils, one at a time, to come up and point out the continent, ocean, or pole that you may name. Conduct this exercise in a bright, snappy way.

17. Allow one pupil to stand at the board and make all the locations; but should he make an error, the pupil detecting it takes his place.

18. Write the names of continents, oceans, and poles beside the map. Allow the pupils, one by one, to step to the board, point to a name, pronounce it, and locate the feature on the map. Conduct this exercise in a rapid, breezy manner.

19. Call on a single individual to name all the features as you point them out on the map.

20. Sometimes allow a pupil to take your place as pointer. Insist, however, on a briskly moving exercise.

Oral Spelling Review.

21. Repeat § 2, but include the words East, West, North Pole, South Pole.

22. Have a spelling bee. Erase the words from the board. Line the children up in two rows, facing each other. These " sides " may be chosen by " captains," but do not let this game element sacrifice time. The teacher now gives out the words alternately to one side and to the other. A pupil misspelling his word goes to his seat and the word is given to the opposing side. The pupil finally remaining wins out for his side.

23. The device in § 22 may be varied by having the pupil, on missing, pass to the foot of the line instead of to his seat. In this game have one line instead of two. The pupil at the head of the line when the lesson closes wins out.

Written Spelling Review.

24. Using the material so far studied (continents, oceans, cardinal points), apply § 4.

THE MERCATOR.

25. Have pupils turn to a mercator map in the text-book (Tarr and McMurry, Elementary, p. 137). Explain briefly that this is a sailor map. It was made originally by a man who called himself Mercator, with the idea of giving sea-captains an easy map to trace their voyages on. Notice that it makes the northern lands too large. Compare the exaggerated arctic lands with those shown in their true proportion on the globe.

26. With this mercator map before the pupils, give a rapid oral review of §§ 8 to 10.

Oral Review (using the mercator).

27. (Model.) 1. To go from North America to Europe, we sail — across the — Ocean.

2. North America to Asia.

3. North America to Africa.

4. North America to Australia.

5. North America to South America.

6-10. South America similarly.

11-15. Africa.

16-20. Australia.

21-25. Asia.

26-30. Europe.

Written Review (without the map).

28. Exercise § 27, filled out from blackboard briefs, without the map.

Outline Map Test.

29. Using a list of continents, oceans, and cardinal points, proceed as in § 7.

NORTH AMERICA (First Course).

Map Sketching.

30. Open each day's lesson with a few minutes spent at the blackboard by the pupils, in quickly outlining the continent. For this purpose let them look intently, for a moment, at a *correctly drawn* outline of your own. Then cover your map and allow them one minute in which to draw.

Now display your outline again for reference and pass rapidly about the room, giving each pupil a criticism on the most conspicuous error in his sketch. Refer him to your own on the point you criticize.

This map-sketching must not be allowed to encroach too much on the rest of the lesson. Do not let it take more than six minutes.

In this work it is of great help to notice opposite points in the coastline. For instance, Lower California extends both farther north and farther south than Florida; and Hudson Bay is directly over the Gulf of Mexico; and Vancouver Island is opposite the Gulf of St. Lawrence.

Watch this daily practice carefully, striving to fix the continental form in the pupil's mind as clearly as are the letters of the alphabet. Let the pupil look at your copy before he draws, but not while he is drawing.

31. Quicker and better results are had by the teacher drawing her model outline while the children watch, instead of presenting one already drawn. This watching while you draw helps the children very much. Of course, the teacher must first practice until she can draw a good outline.

Locations.

For the following work the teacher is to provide herself with either a wall map of the continent, or a blackboard mass map, for which Fig. 1 may be used as a model.

32. Each pupil, having the text-book map of North America before him, let him find the eight natural features given below, as you name them. The pupil first locating the feature may pass to the wall map and locate it there. These locative lessons must be conducted with vim and snap. Do not let the searching of the map cost too much time. If needful, give a clue to the whereabouts of the feature.

Natural Features.

33. Atlantic, Pacific, Arctic Oceans; Gulf of Mexico; Hudson Bay; Rocky Mts.; Appalachian Mts.; Mississippi River.

Political Features.

34. United States, Canada, Mexico, Central America.

Oral Spelling.

35. Using the material of §§ 33 and 34, apply § 2.

36. Using the material of §§ 33 and 34, apply either §§ 22 or 23.

Written Spelling.

37. Using the material of §§ 33 and 34, apply § 4.

Reviews.

38. Using a wall map of North America, or else a blackboard map containing the features needed, adapt §§ 15 to 20, inclusive.

Outline Map Test.

39. Using an outline of North America, proceed as in § 7.

Oral Spelling Review.

40. A lesson on all features learned, as described in the spell-down, §§ 22 or 23.

Written Spelling Review.

41. A written spelling lesson on all features so far learned, using § 4.

Map Sketching. SOUTH AMERICA (First Course).

42. Proceed as in §§ 30, 31. Try to give effective criticisms and bring the pupils rapidly to efficiency.

Locations.

43. Teach the following-named natural and political features according to the suggestions of § 32.

Natural Features.

44. Atlantic, Pacific, Antarctic oceans; Caribbean Sea.
Andes Mts.; Brazilian Highlands; Guiana Highlands.
Amazon, Orinoco, La Plata Rivers.

45. Brazil, Argentina, Chile.
Rio Janeiro, Buenos Aires, Santiago.

Oral Spelling.

46. Using the material of §§ 44 and 45, apply § 2.

Written Spelling.

47. Using the material of §§ 44 and 45, apply § 4.

Reviews.

48. Using a wall map of South America, adapt §§ 15 to 20, inclusive.

Outline Map Test.

49. Use an outline of South America and proceed as in § 7.

Review of North America.

50. Apply §§ 38, 39.

Map Sketching. EUROPE (First Course).

51. Daily blackboard outlining of Europe, as in §§ 30, 31. Read these directions carefully and carry out their spirit.

Locations.

52. Teach the following-named natural and political features according to the suggestions of § 32.

Natural Features.

53. Atlantic and Arctic oceans; Mediterranean, Black, and Caspian seas.
Alps, Pyrenees, Caucasus, and Ural mountains.
Volga and Danube rivers.
Sicily and Iceland.

Political Features.

54. Russia, France, Spain, British Isles.
London, Paris, Berlin.

Oral Spelling.

55. Using the material of §§ 53 and 54, apply § 2.

Written Spelling.

56. Using the material of §§ 53 and 54, apply § 4.

Reviews.

57. Using a wall map of Europe, adapt §§ 15 to 20, inclusive.

Outline Map Test.

58. Use an outline of Europe and proceed as in § 7.

Review of South America.

59. Review §§ 47-49, inclusive.

Map Sketching.

ASIA (First Course).

60. Daily map sketching, as in §§ 30, 31. Re-read those paragraphs carefully.

Locations.

61. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

62. Pacific, Arctic, Indian oceans; Red, Mediterranean, Caspian, Black seas.
Bering Straits; Isthmus Suez.
Himalaya, Ural mountains; Mt. Everest.
Ganges, Indus, Yangtse Kiang, Hoang Ho rivers.

Political Features.

63. Chinese Empire, India, Siberia, Japan.
Peking, Calcutta.

Oral Spelling.

64. Using the material of §§ 62 and 63, apply § 2.

Written Spelling.

65. Using the material of §§ 62 and 63, apply § 4.

Reviews.

66. Using a wall map of Asia, adapt §§ 15 to 20, inclusive.

Outline Map Test.

67. Use an outline of Asia and proceed as in § 7.

Review of Europe.

68. Review §§ 56-58, inclusive.

AFRICA (First Course).

Map Sketching.

69. Daily quick sketching of Africa, as in §§ 30, 31. Aim to have the pupils visualize these continental forms as clearly as they do the letters of the alphabet.

Locations.

70. Teach the following-named features according to the method of § 32.

Natural Features.

71. Atlantic, Indian, Antarctic oceans; Mediterranean, Red seas.
Isthmus of Suez; Straits of Gibraltar; Cape of Good Hope.
Nile and Kongo rivers.

Political Features.

72. Egypt, Barbary States, Cape Colony; Cairo, Alexandria, Cape Town, Pretoria.

Oral Spelling.

73. Using the material of §§ 71 and 72, apply § 2.

Written Spelling.

74. Using the material of §§ 71 and 72, apply § 4.

Reviews.

75. Using a wall map of Africa, adapt §§ 15 to 20, inclusive.

Outline Map Test.

76. Use an outline of Africa and proceed as in § 7.

Review of Asia.

77. Review §§ 65-67.

UNITED STATES (First Course).

Map Sketching.

78. Re-read §§ 30, 31 and apply to United States.

Locations.

79. Teach the following-named natural and political features according to the method of § 32.

Boundaries and Natural Features.

80. Atlantic, Pacific oceans; Gulf of Mexico; Mexico; Canada.
Atlantic Plain; Appalachian Highland; Mississippi Valley; Rocky Mt.
Highland; Pacific Slope.

Political Features.

81. States bordering Pacific (3).
States bordering Mexico (3).
Plateau States (6).
Cities of San Francisco, Portland, Seattle, Galveston, Salt Lake City,
Denver.

Oral Spelling.

82. Using the material of §§ 80, 81, apply § 2.

Written Spelling.

83. Using the material of §§ 80, 81, apply § 4.

Reviews.

84. Using a wall map of United States, apply §§ 15 to 20, inclusive.

Outline Map Test.

85. Use an outline of the U. S. and proceed as in § 7. It will be better to divide the material (§§ 80, 81) into two successive exercises. The outline used for the states must show the political boundaries.

Review of Africa.

86. Review §§ 74-76.

CALIFORNIA (First Course).

Map Sketching.

87. Proceed as in §§ 30, 31.

Locations.

88. Teach the following-named features according to the method of § 32.

Natural Features and Boundaries.

89. Pacific Ocean; Oregon, Nevada, Arizona, Mexico.
Sierra Nevada, Coast Ranges; Sacramento-San Joaquin Valley; Sacramento, San Joaquin rivers; San Francisco Bay; Golden Gate.

Political Features.

90. San Francisco, Oakland, Los Angeles, Sacramento.

Oral Spelling.

91. Using the material of §§ 89, 90, apply § 2.

Written Spelling.

92. Using the material of §§ 89, 90, apply § 4.

Reviews.

93. Using a wall map of California, adapt §§ 15-20, inclusive.

Outline Map Test.

94. Use an outline of California and proceed as in § 7.

Review of United States.

95. Review §§ 83 to 85.

Review Spelling.

96. Selecting the more difficult words in §§ 33-34, 44-45, 53-54, 62-63, 71-72, 80-81, and 89-90, apply the spelling bee, §§ 22 or 23.

Review of North America.

97. Review §§ 37-39.

Review of South America.

98. Review §§ 47-49.

Review of Europe.

99. Review §§ 56-58.

Review of Asia.

100. Review §§ 65, 66, 67.

Review of Africa.

101. Review §§ 74, 75, 76.

Review of United States.

102. Review §§ 83, 84, 85.

Review of California.

103. Review §§ 92, 93, 94.

THE GLOBE (Second Course).

Globe Climate: Zones.

104. In preparation for this work paint the zones on one of the globes previously used. Color the torrid zone orange, the temperate zones green, and the frigid zones bluish white to white at the poles. Blend these various colors at their lines of junction so that the transition will be somewhat gradual instead of abrupt. Finally trace the continental outlines in place, with black paint.

105. With this globe in hand teach that the frigid zones are cold, and are regions of ice and snow. Give the names North Frigid Zone and South Frigid Zone. Similarly teach the North and South Temperate zones as regions of mild climate (such as ours), and the Torrid Zone as having a very warm climate.

Circles.

106. Show the Arctic Circle on your globe and give its name. Have the pupils find it on the hemisphere map in their text-books. Notice where it crosses the continents. Notice that it is the northern boundary of the North Temperate Zone and the southern boundary of the North Frigid Zone.

Similarly teach the Antarctic Circle, the Tropics of Cancer and Capricorn, and the Equator.

Locations.

107. Having drawn a blackboard map of the hemispheres showing the circles and continents, adapt § 32 to the teaching of zones and circles.

Oral Spelling.

108. Using the names of zones and circles, proceed as in § 2.

Written Spelling.

109. Using the names of zones and circles, proceed as in § 4.

Reviews.

110. Let a pupil, taking the globe in his hand, point out each zone and

circle, describing the zones. Others keenly watch and correct. Manage this game so that all of the more doubtful pupils have this handling of the globe.

111. Adapt § 15 to § 20, inclusive, to zones, circles, and poles.

Outline Map Tests.

112. Using outlines of the hemispheres, showing circles and continents, proceed as in § 7. The word list will include zones, circles, and poles.

113. On a second outline of the hemispheres let the pupils color the very warm region red or orange, the mild regions green, and the cold regions blue to white.

Review of California.

114. Review §§ 92-94.

NORTH AMERICA (Second Course).

Map Sketching.

115. Apply §§ 30, 31. Re-read these paragraphs carefully and give them full force.

Locations.

116. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

117. Isthmus of Panama; Bering Straits; Great Lakes (as a whole).
St. Lawrence, Columbia, Colorado, and Rio Grande rivers.

Political Features.

118. West Indies, Greenland, Iceland, Newfoundland.
Cities of Washington, Montreal, Mexico.

Oral Spelling.

119. Using the material of §§ 117, 118, apply § 2.

Written Spelling.

120. Using the material of §§ 117, 118, apply § 4.

Reviews.

121. Using a wall map of North America, adapt § 15 to § 20, inclusive.

Outline Map Test.

122. Use an outline map of North America and proceed as in § 7.

Review of North America (First Course).

123. Review §§ 37, 38, 39.

Review of the Globe (Second Course).

124. Review §§ 109, 111, 112.

SOUTH AMERICA (Second Course).

Map Sketching.

125. Proceed as in §§ 30, 31.

Locations.

126. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

127. Isthmus of Panama, Straits of Magellan, Cape Horn, Plateau of Bolivia, Lake Titicaca.

Political Features.

128. Bolivia, Peru, Colombia, Venezuela.
Bogota, Caracas.

Oral Spelling.

129. Using the material of §§ 127, 128, apply § 2.

Written Spelling.

130. Using the material of §§ 127, 128, apply § 4.

Reviews.

131. Using a wall map of South America, adapt § 15 to § 20, inclusive.

Outline Map Test.

132. Use an outline of South America and proceed as in § 7.

Review of South America (First Course).

133. Review §§ 47, 48, 49.

Review of North America (Second Course).

134. Review §§ 120, 121, 122.

EUROPE (Second Course).

Map Sketching.

135. Continue as in §§ 30, 31. Re-read these paragraphs carefully and secure the end they have in view.

Locations.

136. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

137. North, Baltic, Adriatic, Ægean seas.
Apennine, Scandinavian, Balkan mountains.
Elbe, Rhine, Seine rivers.

Political Features.

138. Norway, Sweden, Germany, Austria, Italy, Turkey, Greece.
St. Petersburg, Rome, Constantinople, Vienna, Amsterdam, Brussels,
Hamburg, Moscow.

Oral Spelling.

139. Using the material of §§ 137-8, apply § 2.

Written Spelling.

140. Using the material of §§ 137-8, apply § 4.

Reviews.

141. Using a wall map of Europe, adapt § 15 to § 20, inclusive.

Outline Map Test.

142. Use an outline map of Europe and proceed as in § 7.

Review of Europe (First Course).

143. Review of §§ 56-8.

Review of South America (Second Course).

144. Review §§ 130-2.

Map Sketching. ASIA (Second Course).

145. Daily work on Asia as described in §§ 30-31.

Locations.

146. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

147. Japan Sea, Yellow Sea, Bay of Bengal, Arabian Sea, Persian Gulf,
Bering Sea.
Pamir Plateau, Plateau of Tibet.
Obi, Yenesei, Lena rivers.

148. Persia, Arabia, Turkey, Siam, China.
Bombay.

Oral Spelling.

149. Using the material of §§ 147-8, apply § 2.

Written Spelling.

150. Using the material of §§ 147-8, apply § 4.

Reviews.

151. Using a wall map of Asia, adapt §§ 15-20, inclusive.

Outline Map Test.

152. Use an outline map of Asia and proceed as in § 7.

Review of Asia (First Course).

153. Review §§ 65-7.

Review of Europe (Second Course).

154. Review §§ 140-2.

AFRICA (Second Course).

Map Sketching.

155. Daily work on Africa as described in §§ 30-31.

Locations.

156. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

157. Atlas Mountains; Sahara Desert; Abyssinian Plateau.
Zambesi, Niger, Orange rivers.
Lakes Victoria, Tanganyika, Nyassa, Chad.
Azores, Madagascar; Gulf of Guinea.

Political Features, Etc.

158. Abyssinia, Morocco, Suez Canal.

Oral Spelling.

159. Using the material of §§ 157-8, apply § 2.

Written Spelling.

160. Using the material of §§ 157-8, apply § 4.

Reviews.

161. Using a wall map of Africa, adapt § 15 to § 20, inclusive.

Outline Map Test.

162. Use an outline of Africa and proceed as in § 7.

Review of Africa (First Course).

163. Review §§ 74-6.

Review of Asia (Second Course).

164. Review §§ 150-52.

UNITED STATES (Second Course).

Map Sketching.

165. Continue as in §§ 30-31.

Locations.

166. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

167. Rocky, Appalachian, Sierra Nevada mountains.
Mississippi, Missouri, Ohio, St. Lawrence rivers.
Lakes Superior, Michigan, Huron, Erie, Ontario.
Capes Cod, Hatteras; Puget Sound.

Political Features.

168. States on west bank Mississippi (5).
States, etc., due north of Texas (6).
Cities of New Orleans, St. Louis, Minneapolis, Kansas City, Omaha.

Oral Spelling.

169. Using the material of §§ 167-8, apply § 2.

Written Spelling.

170. Using the material of §§ 167-8, apply § 4.

Reviews.

171. Using a wall map of United States, adapt § 15 to § 20, inclusive.

Outline Map Test.

172. Use an outline of United States and proceed as in § 7.

Review of United States (First Course).

173. Review §§ 83-5.

Review of Africa (Second Course).

174. Review §§ 160-2.

CALIFORNIA (Second Course).

Map Sketching.

175. Daily work on the outline of California, as in §§ 30-31.

Locations.

176. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

177. Mts. Shasta, Whitney, Diablo.

Salinas, Ecl. and Klamath rivers.

Tulare, Tahoe, Clear lakes.

Yosemite Valley; Mohave Desert; Monterey Bay; Santa Catalina Island.

Political Features.

178. San Jose, Stockton, Fresno, San Diego.

Oral Spelling.

179. Using the material of §§ 177-8, apply § 2.

Written Spelling.

180. Using the material of §§ 177-8, apply § 4.

Reviews.

181. Using a wall map of California, adapt §§ 15-20, inclusive.

Outline Map Test.

182. Use an outline map of California and proceed as in § 7.

Review of California (First Course).

183. Review §§ 96-8.

Review of United States (Second Course).

184. Review §§ 170-2.

Review Spelling.

185. Selecting the more difficult words in §§ 117-18, 127-8, 137-8, 147-8, 157-8, 167-8, 177-8; apply the spelling bee, § 22 or § 23.

Review of North America (Second Course).

186. Review §§ 120-2.

Review of South America (Second Course).

187. Review §§ 130-2.

Review of Europe (Second Course).

188. Review §§ 140-2.

Review of Asia (Second Course).

189. Review §§ 150-2.

Review of Africa (Second Course).

190. Review §§ 160-2.

Review of United States (Second Course).

191. Review §§ 170-2.

Review of California (Second Course).

192. Review §§ 180-2.

THE GLOBE (Third Course).

193. Give a quick, wide-awake review of §§ 1, 5 and 6.

Review of Cardinal Points.

194. Repeat § 8 and § 9.

Written Test.

195. Repeat § 11.

Map Filling Review.

196. Repeat § 12.

Review of Hemispheres.

197. Repeat § 13, and also § 14 to § 20, as far as may prove needful.

Review of the Mercator.

198. Repeat § 25 and § 27.

Map Filling Review.

199. Repeat § 29.

Mercator Map (Third Course).

200. Draw a mercator map of the world on the board. Use this in conjunction with the text-book map (Tarr and McMurry, Elementary, p. 137).

Questions on the Text-Book Map.

201. What continents are crossed by the Arctic Circle?

The Antarctic? (!)

The Equator?

Tropic of Cancer?

Tropic of Capricorn?

Find the North Pole in this map.*

In what zones lies North America?

South America?

Europe? Africa? Asia? Australia?

Commercial Points.

202. Locate these points on the mercator (text-book), following the method of § 32:

London, New York, Chicago, San Francisco, Honolulu, Tokio, Hong Kong, Manila, Calcutta, Bombay, Suez Canal, Straits Gibraltar.

New Orleans, Rio Janeiro, Buenos Aires, Cape Horn, Magellan's Straits, Santiago, Isthmus of Panama, Bering Straits.

Constantinople, Cairo, Cape Town, Cape of Good Hope, Melbourne, Sydney.

West Indies, Hawaiian, Philippine islands.

Trade Routes.

203. Trace the shortest water route from London to Calcutta.

What was the route before the Suez Canal was cut?

Trace the shortest water route from San Francisco to New York.

How will the proposed Panama Canal affect this route?

Trace three water routes from London to Australia, naming the bodies of water traversed.

Trace three water routes from New York to Japan, naming the waters traversed.

Review.

204. Using the blackboard mercator, give a brisk review of §§ 201-3.

Outline Map Test.

205. Provide a mercator outline, including continental outlines and the circles. Pupils print in place—

North, East, South, West,

The circles,

And the names in § 202.

*By changing the earth's surface from the spherical to the oblong the North Pole is stretched out into a line.

NORTH AMERICA (Third Course).

Map Sketching.

206. Apply §§ 30-31 and secure good outlines in one minute.

Locations.

207. Teach the following natural and political features according to the method of § 32.

Natural Features.

208. Bering, Caribbean seas.
Missouri, Ohio, Yukon rivers.
Pike's Peak, Mt. Shasta.
Great Salt Lake; Hawaiian Islands.

Political Features.

209. Cities of New York, Chicago, San Francisco, New Orleans, Havana.
Cuba, Porto Rico, Haiti, Jamaica.

Oral Spelling.

210. Using the material of §§ 208-9, apply § 2.

Written Spelling.

211. Using the material of §§ 208-9, apply § 4.

Reviews.

212. Using a wall map of North America, adapt § 15 to § 20, inclusive.

Outline Map Test.

213. Use an outline of North America and proceed as in § 7.

Review of North America (First and Second Courses).

214. Review §§ 37-9.
215. Review §§ 120-2.

SOUTH AMERICA (Third Course).

Map Sketching.

216. Apply §§ 30-31 and secure good outline in one minute.

Locations.

217. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

218. Cotopaxi, Chimborazo, Aconcagua.
Trinidad, Tierra del Fuego, Falkland Islands.

Political Features.

219. Guiana, Ecuador, Paraguay, Uruguay, Panama (Republic).
Montevideo.

Oral Spelling.

220. Using the material of §§ 218-19, apply § 2.

Written Spelling.

221. Using the material of §§ 218-19, apply § 4.

Reviews.

222. Using a wall map of South America, adapt §§ 15-20, inclusive.

Outline Map Test.

223. Use an outline of South America and proceed as in § 7.

Review of South America (First and Second Course).

224. Review §§ 47-9.
225. Review §§ 130-32.

Review of North America (Third Course).

226. Review §§ 211-13.

EUROPE (Third Course).

Map Sketching.

227. Apply §§ 30-31 and secure good outline in one minute.

Locations.

228. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

229. Straits of Gibraltar, Dover, Bosphorus, Dardanelles, English Channel.
Thames, Rhone, Po rivers.
Vesuvius, Mt. Blanc.

Political Features.

230. Belgium, Holland, Denmark, Switzerland, Portugal; England, Scotland, Ireland, Wales.
Madrid, Naples, Venice, Stockholm, Copenhagen, Liverpool.

Oral Spelling.

231. Using the material of §§ 229-30, apply § 2.

Written Spelling.

232. Using the material of §§ 229-30, apply § 4.

Reviews.

233. Using a wall map of Europe, adapt §§ 15-20, inclusive.

Outline Map Test.

234. Use an outline map of France and proceed as in § 7.

Review of Europe (First and Second Courses).

235. Review §§ 56-8.

236. Review §§ 140-2.

Review of South America (Third Course).

237. Review §§ 221-3.

ASIA (Third Course).

Map Sketching.

238. Apply §§ 30-31 and secure good outline in one minute.

Locations.

239. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

240. Bering Straits; Isthmus of Suez; Desert of Gobi.
Tigris, Euphrates, Amur rivers.
Borneo, Sumatra, Java, Ceylon, Philippines, Formosa.

Political Features.

241. Hong Kong, Tokio, Manila, Jerusalem.
Corea.

Oral Spelling.

242. Using the material of §§ 240-41, apply § 2.

Written Spelling.

243. Using the material of §§ 240-41, apply § 4.

Reviews.

244. Using a wall map of Asia, adapt §§ 15-20, inclusive.

Outline Map Test.

245. Use an outline map of Asia and proceed as in § 7.

Review of Asia (First and Second Course).

246. Review §§ 65-7.

247. Review §§ 150-52.

Review of Europe (Third Course).

248. Review §§ 232-4.

AFRICA (Third Course).

Map Sketching.

249. Apply §§ 30-31 and secure good outline in one minute.

Review of Africa (First and Second Courses).

250. Review §§ 74-6.

251. Review §§ 160-2.

Review of Asia (Third Course).

252. Review §§ 243-5.

UNITED STATES (Third Course).

Map Sketching.

253. Apply §§ 30-31 and secure good outline in one minute.

Locations.

254. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

255. Rio Grande, Colorado, Columbia, Hudson, Potomac rivers.
Pike's Peak; Niagara Falls; Chesapeake Bay; Great Salt Lake.

Political Features.

256. States on east bank of Mississippi (5).
New England States (6).
Other Atlantic States (9).
Gulf States (5).
Lake States (8).
West Virginia.

Oral Spelling.

257. Using the material of §§ 255-6, apply § 2.

Written Spelling.

258. Using the material of §§ 255-6, apply § 4.

Reviews.

259. Using a wall map of United States, adapt §§ 15-20, inclusive.

Outline Map Test.

260. Use an outline map of U. S. and proceed as in § 7.

Review of United States (First and Second Courses).

261. Review §§ 83-5.

262. Review §§ 170-2.

Review of Africa (Third Course).

263. Strengthen any weak spots in the pupil's knowledge of §§ 74-6, 160-2.

CALIFORNIA (Third Course).

Map Sketching.

264. Apply §§ 30-31 and secure good outline in less than one minute.

Locations.

265. Teach the following-named features according to the method of § 32.

Counties.

266. Bay counties (9).

Pacific Coast, north (5).

Pacific Coast, south (10).

Oregon line (3).

Nevada-Arizona line (12).

San Joaquin Valley (11).

Sacramento Valley (11).

Trinity, Lake, San Benito (3).

Oral Spelling.

267. Using the material of § 266, apply § 2.

Written Spelling.

268. Using the material of § 266, apply § 4.

Reviews.

269. Using a wall map of California, adapt §§ 15-20, inclusive. Use the material of § 266 in convenient sections, not all at once.

Outline Map Test.

270. Use an outline map of California and proceed as in § 7. This exercise will have to be given in sections. A separate and enlarged outline must be provided for the Bay counties test. This need not show the whole State. The remainder will need two maps.

Reviews of California (First and Second Courses).

271. Review §§ 92-4.

272. Review §§ 180-2.

Review of United States (Third Course).

273. Review §§ 258-60.

AUSTRALASIA (Only Course).

Map Sketching.

274. Give one-minute blackboard practice on the outline of Australia until good results are secured.

Locations.

275. Teach the following-named natural and political features according to the method of § 32.

Natural Features.

276. Pacific, Indian, Antarctic oceans.
 Australia, New Zealand, Tasmania, Borneo, New Guinea, Java,
 Sumatra, Fiji Islands, Samoa.
 Main highland; Australian Desert; Barrier Reef.
 Murray, Darling rivers.

Political Features.

277. Melbourne, Sydney, Wellington.

Oral Spelling.

278. Using the material of §§ 276-7, apply § 2.

Written Spelling.

279. Using the material of §§ 276-7, apply § 4.

Reviews.

280. Using a wall map of Australasia, adapt §§ 15-20, inclusive.

Outline Map Test.

281. Use an outline map of Australasia and proceed as in § 7.

Review of California (Third Course).

282. Review of §§ 268-70.

REVIEWS OF THIRD COURSE.

North America.

283. Review §§ 211-13.

South America.

284. Review §§ 221-3.

Europe.

285. Review §§ 232-4.

Asia.

286. Review §§ 243-5.

Africa.

287. Review, in the measure needful, §§ 74-6 and §§ 160-2.

United States.

288. Review §§ 258-60.

California.

289. Review §§ 268-70.

Australasia.

290. Review §§ 279-81.

BOOKS CITED IN THE READINGS ON SOUTH AMERICA.

List I. (Books especially adapted for supplementary reading.)

Allen, Children of the palm lands.....	Ed. Pub. Co. 50c.
Beal, Information reader No. 1.....	Boston School Sup. Co. 60c.
Carpenter, North America (Geographical reader)..	American Book Co. 60c.
Carpenter, South America (Geographical reader)..	American Book Co. 60c.
Carpenter, Australia and islands (Geographical reader)	American Book Co. 60c.
Coe, Our American neighbors.....	Silver Burdett Co. 60c.
Companion series, By land and sea.....	Perry Mason & Co. 50c.
Chamberlain, How we are fed.....	Macmillan. 40c.
Chamberlain, How we are clothed.....	Macmillan. 40c.
Chase & Clow, Stories of industry, II.....	Ed. Pub. Co. 40c.
Clifford, Information reader No. 2.....	Boston School Sup. Co. 60c.
Griffis, The romance of discovery.....	W. A. Wilde Co.
Hield, Glimpses of South America.....	Cassell. 75c.
Hall, Our world reader No. 1.....	Ginn & Co. 50c.
Herbertson, Central and South America.....	Black. 75c.
Ingersoll, Book of the ocean.....	Century Co. \$1.50.
Johonnot, Stories of other lands.....	American Book Co. 40c.
Johonnot, Geographical reader	American Book Co. \$1.00.
Johonnot, Glimpses of the animate world.....	Appleton. \$1.00.
Kellogg, Australia and islands of the sea.....	Silver Burdett Co. 60c.
Kirby, The world by the fireside.....	Nelson & Sons. \$1.75.
McMurry, Pioneers on land and sea.....	Macmillan. 50c.
Markwick & Smith, South American republics...	Silver Burdett Co. 60c.
Nelson (Pub.), The Amazon and its wonders....	Nelson & Sons.
Parker, Information reader No. 3.....	Boston School Sup. Co. 60c.
Repert, Geographical reader.....	Sibley. 65c.
Shaw, Big people and little.....	American Book Co. 30c.
Starr, Strange peoples.....	Heath. 40c.
Stockton, Tales out of school.....	Scribner. \$1.50.
Tarr & McMurry, Geography, third book (of the three book series).....	Macmillan. 50c.
Wood, Primer of political economy.....	Macmillan. 50c.
Youth's Companion series, Strange lands near home.	Ginn & Co. 25c.

List II. (Books useful for teachers' reading but not easily broken up into assigned readings for pupils.)

Adams, Commercial geography.....	Appleton. \$1.30.
Adams, Elementary commercial geography.....	Appleton. \$1.10.
Andrews, Brazil and its prospects.....	Appleton. \$1.50.
Agassiz, Journey in Brazil.....	Houghton. \$2.50.
Ballou, Footprints of travel.....	Ginn & Co. 80c.
Ballou, Equatorial America.....	Houghton. \$1.50.
Bishop, A thousand miles walk.....	Lee. \$1.50.

Bates, A naturalist on the Amazon.....	Appleton.	\$5.00.
Conway, Bolivian Andes.....	Harper.	\$3.00.
Dryer, Lessons in physical geography.....	American Book Co.	\$1.20.
Davis, Physical geography.....	Ginn & Co.	\$1.25.
Davis, Three gringos in Venezuela.....	Harper.	\$1.50.
Ewbank, Life in Brazil.....	Harper.	\$3.00.
Ford, Tropical America.....	Scribner.	\$2.00.
Hartwig, The tropical world.....	Longmans.	\$3.00.
Morris, Half hours of travel.....	Lippincott.	4 vols. \$6.00.
Nery, Land of the Amazons.....	Dutton.	\$4.00.
Orton, The Andes and the Amazon.....	Harper.	
Redway, New basis of geography.....	Macmillan.	
Slocum, Sailing alone around the world.....	Century Co.	\$2.00.
Spear, Gold diggings of Cape Horn.....	Putnam.	\$1.75.
Smith, Brazil.....	Scribner.	\$5.00.
Stephens, On the Amazon.....	Coates.	75c.
Vincent, Around and about South America.....	Appleton.	\$5.00.
Waterton, Wanderings in South America.....	Nelson.	\$2.00.
Whymper, Travels amongst the great Andes of the equator	Scribner.	\$2.50.

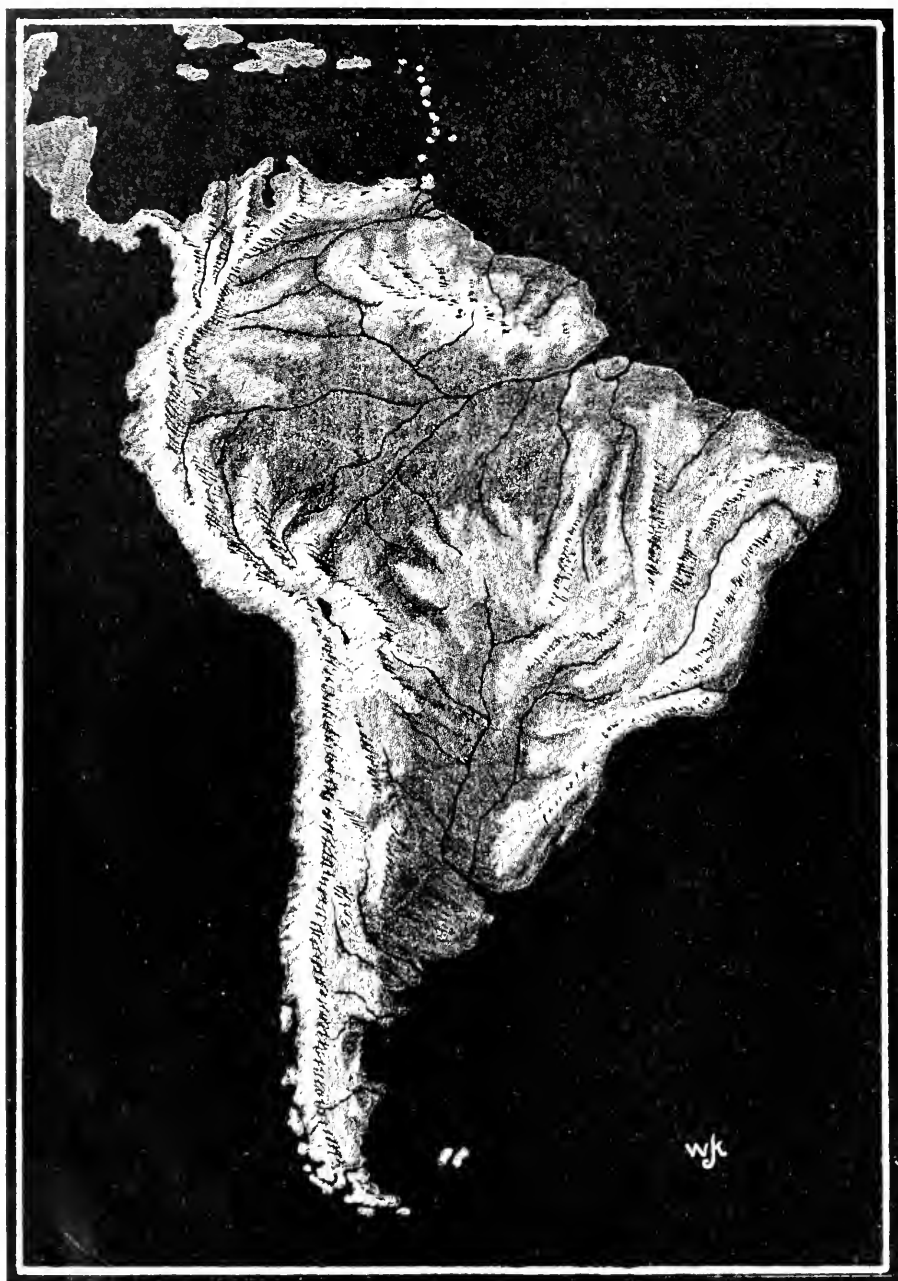


Fig. 2
Mass map of South America

THE CONTINENT OF SOUTH AMERICA.

PHYSICAL SOUTH AMERICA.

STRUCTURE.

REFERENCE MATERIAL:

Redway's Advanced Geography, 103-5.
Tarr & McMurry, First Book, 199 and 50-51.
Tarr & McMurry, Third Book, 96-100.
Herbertson, Central and South America, xxi-xxiv.
Markwick & Smith, 16-24.

Lesson Units.

1. South America has four great parts; three of these are plateaus, and the fourth is the great central lowland which separates them. If the continent sank a thousand feet deeper into the sea these three plateaus would become islands. 2. The western, or Andean, plateau is much the highest; there is only one plateau in the world which is higher. 3. The central lowland reaches the sea in three arms, occupied by the Amazon, La Plata, and Orinoco rivers; and these allow navigation to the heart of the continent.

1. *South America has four great parts: Three of these are plateaus; the fourth is the great central lowland which separates them. If the continent sank a thousand feet deeper into the sea these three plateaus would become islands.*

Draw a good-sized mass map* on the blackboard and have your class notice the three plateaus and the lowland. Give the names, Andes highlands, Brazilian highlands, Guiana highlands, central plain.

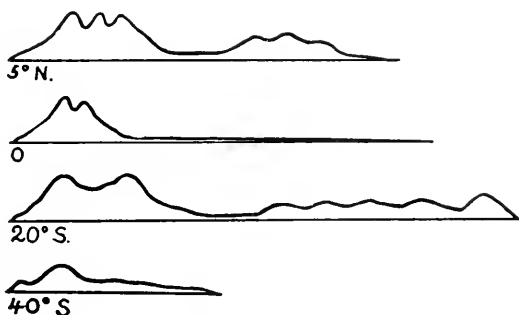


Fig. 3. Profiles of South America.

Draw four diagrams on the board representing profiles of South America at Lat. 5° N., 0°, 20° S., and 40° S. (Fig. 3). With these profiles as a

*To make a mass map draw a large outline of South America on the blackboard; then fill in all the plateau areas with one color and all the lowlands with another. Thus every part of the map will be filled in, leaving no vacant spaces. Now add the mountain ranges to the plateaus by using heavy white strokes for one slope and charcoal or the eraser for the other. Finally add the rivers, in charcoal. (See Fig. 2.)

basis, elicit several statements about the plateaus, as to comparative height, width, and steepness of slope. Elicit the difference between a plateau and a mountain, identifying each in the profiles.

Study the physical map (Redway Adv., p. 102; Frye Adv., 137) in conjunction with the profiles. Establish the fact that regions less than one thousand feet in altitude are called lowlands; and that above that level they are called highlands, or plateaus.



Fig. 4. If South America should subside a thousand feet.

Have pupils identify the highlands and lowlands on the text-book map and then indicate their extent on your mass map. Have them identify and name the four features as they appear in your blackboard profiles.

Sketch a faint outline of South America on the board and ask various pupils to trace within it the new coast-lines as they would appear if the continent sank a thousand feet into the sea. (Fig. 4.)

2. The western, or Andean, plateau is much the highest; there is only one plateau in the world which is higher.

Only the highlands of central Asia exceed the Andean plateau in altitude. Tell the class of Lake Titicaca, nearly 13,000 feet above the sea (how much higher than your nearest big mountain?), where steamboats ride "above the clouds." Locate the plateau of Bolivia, and Lake Titicaca in it. Locate Lake Titicaca in the blackboard profile (Fig. 3). Some of the mountains around it are over 20,000 feet high. Locate Sorata, or have a pupil do it, on your mass map. Locate the volcano Aconcagua (23,000 ft.), in middle Chile—the highest mountain in the world outside of Asia. Tell the class of Quito, over 9,000 feet above the sea, a city almost on the equator, yet so

high as to be ever cool. Have it located on the political map. Mention and locate other high Andean cities—Bogota (8,800 ft.), La Paz (12,000 ft.), Cuzco (11,000 ft.), Potosi (13,000 ft.).

3. *The central lowland reaches the sea in three arms, occupied by the Amazon, La Plata, and Orinoco rivers; and these allow navigation to the heart of the continent.*

Have the class locate the three rivers on the blackboard map and name them; have each described (source, direction of flow, receiving body of water). Elicit statements as to what highlands supply each river with water. Compare the rivers in size; in the character of their mouths. Elicit a comparison between these rivers and those of the western slope.

Talk a little with the class about the usefulness of a great river as a ready-made road. Point out that vessels may take cargoes from the ocean into the heart of Peru and Bolivia, on the broad waterway of the Amazon, and bring other cargoes out. What would be the difference if there were no Amazon?

Similarly the branches of the Parana admit vessels entirely through Paraguay into Brazil; and the Orinoco is navigated to the base of the Andes.

Written Work.

1. Name the four great structural features of South America.
2. Compare the plateaus, one with another. Draw profiles to illustrate.
3. Describe the effect on the continent of South America should it subside 1,000 feet into the sea.
4. Tell about Lake Titicaca and the plateau of Bolivia.
5. Tell about Aconcagua.
6. Tell about Quito.
7. Name the three great rivers of the central plain.
8. Describe each (source, flow, and receiving body).
9. Compare these rivers with those of the western slope.
10. Tell how these rivers are useful in commerce.

CLIMATE: HEAT.

REFERENCE MATERIAL:

Redway's Advanced geography, 23-5, 104.
 Frye's Advanced geography, 25-9, 141.
 Tarr & McMurry, Third Book, 12-17, 100-105.
 Tarr & McMurry, First Book, 74-80, 120-23, 200.
 Herbertson, xxvi-xxvii.
 Dryer, 293-300, 335-40.

Lesson Units.

1. The greater part of South America lies in the torrid zone, and has a hot climate and a perpetual summer. The southern third lies in the south temperate zone and has seasons more like ours. 2. The greater part of South America lies south of the equator; the seasons are therefore reversed,

and the people of those regions have summer during our winter months and a mild winter during our summer. 3. The high plateaus are always cool, even in the torrid zone; and the peaks are covered with eternal snow.

1. *The greater part of South America lies in the torrid zone, and has a hot climate and a perpetual summer. The southern third lies in the south temperate zone, and has a climate more like ours.*

Begin with a review lesson on zones, using the hemisphere map in the text-book, and, if procurable, a globe also. Teach the names of the zones and of the circles bounding them.

Elicit that climate is colder toward the poles and warmer toward the equator. Have pupils describe each zone as to its climate.

Using the political map, elicit that about two-thirds of South America lie in the torrid zone, and that the climate of these regions will be that of the tropics. Elicit that most of Argentina and Chile lies in the south temperate zone, and that their climate will more nearly resemble our own.

Let the pupils find a place in South America having a latitude about corresponding to their own, and infer as to its climate.

Have them find the town, river, or other feature which they judge to have the hottest climate; also that which they believe to have the coldest.

2. *The greater portion of South America lies south of the equator; the seasons are therefore reversed, and the people of those regions have summer during our winter months, and a mild winter during our summer.*

Teach that summer travels with the sun. The hottest part of the day is when the sun is high in the sky; the hottest part of the year is when the sun is (approximately) nearest the zenith. In winter-time the sun is low in the southern sky, even at noonday.

Elicit that if we journeyed southward toward the sun it would rise higher and higher in the sky and at last be directly overhead. Here would be the hot lands of perpetual summer. Journeying still to the south, we should leave the sun behind us. It would sink farther and farther in the northern sky as we traversed colder and colder regions toward the south pole.

Having established the fact that a high noonday sun makes summer, teach that when the sun comes north, giving us summer, it leaves the southern hemisphere and makes winter there. In their winter the sun is low in the northern sky because it has risen high in our southern sky, and vice versa. Therefore, at Buenos Aires, for example, December is the mid-summer month, and June is mid-winter.

But even in the extreme south (Tierra del Fuego) the winters are not very cold. It is a wild, stormy region, but not bitterly cold, as in the corresponding latitude of our own hemisphere. This is because there is so little land and so much water there. The ocean climate prevails. And the ocean is comparatively warm in winter and cool in summer.

3. *The high plateaus are always cool, even in the torrid zone, and the peaks are covered with eternal snow.*

Miners who dig deep in the earth find it grow steadily warmer as they go down. Balloonists who sail high in the air find it get steadily colder as they rise. The upper regions of the air, away from the solid earth, are colder, the farther we go. If the balloonist should begin his journey in the hot palm lands at the equator, and rise 16,000 feet, he would reach the region of eternal frost.

Teach, not that "the upper air is cold," but that *the place*—the altitude, the distance from the great stove, is cold. Therefore, great mountain peaks that push themselves far up into those altitudes are cold; so cold that the snows which fall upon them never wholly melt. In South America, even in Ecuador, at the equator, peaks higher than 16,000 feet are covered with eternal snow.

The high plateaus of the tropical Andes are always cool because they are high, and never very cold because they are in the torrid zone. Here are those mountain cities such as Quito, Bogota, and La Paz, whose climate is a perpetual spring. "A gentleman in La Paz may send a servant in the morning to the heights above, to bring down a load of ice, and another to the lower levels for pineapples and other tropical fruits; both will return at noon with their commodities."

Written Work.

1. Name the zones of the earth and the circles bounding them.
2. Tell about the climate of each zone.
3. In what zones does South America lie?
4. Where are the warm regions of South America, and where are the cooler ones?
5. How do the summer and winter of South America differ from ours?
6. Tell what the miner and the balloonist find out about temperature.
7. Why do high mountains have snow-covered peaks?
8. Tell about the climate of some Andean city.
9. If temperature decreases five degrees for every 1,000 feet of altitude, and Quito is 9,000 feet above sea level, how much cooler is it there than in the Amazon lowlands?

CLIMATE: MOISTURE.

REFERENCE MATERIAL:

- Redway's Advanced geography, 13-14, 25-7, 104.
 Frye's Advanced geography, 29-31, 141.
 Tarr & McMurry, First Book, 71-80.
 Tarr & McMurry, Third Book, 31-3, 100-103.
 Redway, New basis of geography, 90.
 Dryer, Lessons in physical geography, 280-86, 301-11, 327-34, 335-40.
 Davis, 29-33, 36-9, 45-7, 403-4.

Lesson Units.

1. The Amazon region lies in the equatorial rain belt and has heavy thunder showers daily. It is one of the rainiest regions in the world.

2. Southern Chile opposes the Andes Mountains to a prevailing sea-wind, and is very rainy. Patagonia, on the other side of the mountains, is arid.
3. Farther north the prevailing wind is from the east; therefore, the east slopes are well watered, while the Pacific slope is a famous desert.

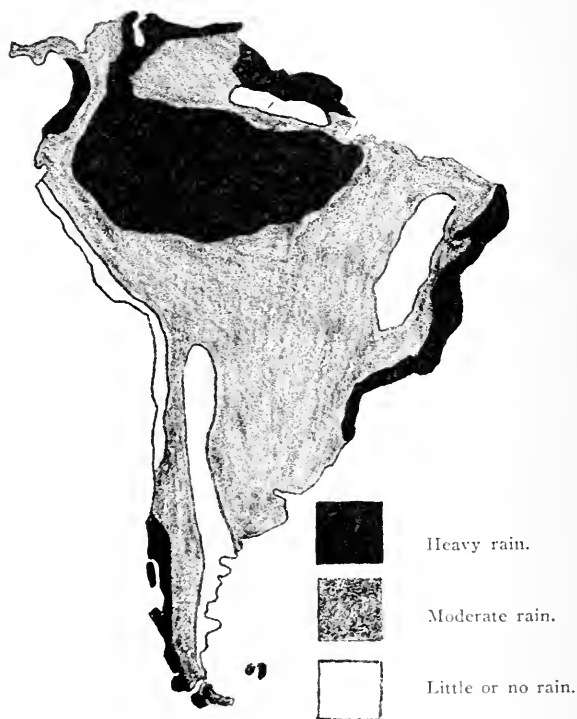


Fig. 5. Rain map of South America.

1. *The Amazon region lies in the equatorial rain belt, and has heavy thunder showers daily. It is one of the rainiest regions in the world.*

Establish the Theory of Rain Making:—

(a) The sea is constantly evaporating into the air above it. Pour a few drops of water on a pane of glass and expose to the sunshine. After its disappearance discuss the matter. The pupils will say "the water dried up." Give term *evaporate* and elicit that the water evaporated and is *now in the air*, in an invisible form. Elicit other examples of evaporation; clothes hanging out "to dry"; the sidewalk "dries up" after being sprinkled; ponds "dry up" in summer; the teakettle boils dry; etc.

To show that heat aids evaporation get two saucers and pour into each exactly a teaspoonful of water. Put one in a cool, shady place and the other in the hot sunshine, or else on the stove. Elicit a statement as to the effect of heat on evaporation. Elicit that, in all these cases, the vanished water is now in the air. Elicit the inference that all the air, at all times, has invisible water in it.

(b) Air that has moisture in it, if cooled, will reveal that moisture as cloud, mist, rain, or snow.

Examine the inside of the lid of a boiling teakettle. It has drops of water on it. How did they get there? What becomes of them as they continue to form?

Watch the steam issuing from the spout. It remains invisible for the space of an inch, more or less, and then turns into a visible cloud. What caused the change?

Heat a pane of glass and then breathe on it. Now breathe on a cold pane. Explain the different results.

Here we have an instance each of rain, cloud, and mist. If the chilling of moist air is carried to the freezing point, snow falls instead of rain. Tell about snow falling in a Russian ball-room, when a blast of cold outer air is let in upon the warm, moist air of the room.

Establish the idea of a rising air current at the heat equator:—

The air in the neighborhood of the equator becomes warm and light, and is pushed up by the cooler, heavy air pressing in from north and south. This colder air becomes heated and rises in its turn. Thus there is a belt of air constantly rising (all around the earth) that has gathered moisture on its way. As it rises to cooler altitudes it becomes chilled and gives down a heavy rain every afternoon.

This equatorial rain belt extends around the earth, over land and sea. Turn to the rain map (Redway, p. 26; T. & McM., Third Bk., 32, 35) and note that the Kongo country and the East Indies, as well as the Amazon region, are in this equatorial rain belt. Of course, the rain falls on the ocean also, but the maps do not show it.

2. Southern Chile opposes the Andes Mountains to a prevailing sea-wind, and is very rainy. Patagonia, on the other side of the mountains, is arid.

We have already learned that moist air, rising to higher altitudes, becomes chilled and yields rain. The present lesson is to show that mountains, lying in the path of a sea-wind, are rainmakers; and also that the region beyond such mountains will be arid.

In Chile, south of Lat. 30° , the prevailing wind is from the sea. It strikes the Andes, travels up their slope, and condensation takes place. This makes southern Chile one of the rainy regions of the earth. This sea-wind, having crossed the Andes, there is nothing to elevate it (chill it) further. Patagonia is therefore a dry region. The rivers which cross it bring their water from the Andes.

3. Farther north the prevailing wind is from the east; therefore the east slopes are well watered, while the Pacific slope is a famous desert.

North of (about) Lat. 35° the wind blows from the southeast (trade-wind). The mountains of southern Brazil make the first demand upon it

and their valleys have abundant rain. But after this there is no elevation to cause further condensation until the high Andes are reached. Here additional moisture is deposited in the form of snow. Having crossed the Andes, this air current gives up no more moisture, and the Pacific slope is a desert northward to the region of equatorial rains.

In the same way the mountains of Guiana, opposing a sea-wind from the northeast (trade-wind) have a wet seaward slope and a dry one on the interior.

Written Work.

1. How does the air get its moisture?
2. What must happen to the air to produce rain?
3. Explain the equatorial rain belt.
4. How may mountains cause rain?
5. Explain the rain of southern Chile.
6. Explain the climate of Patagonia.
7. Explain the rains of southern Brazil.
8. Explain the desert on the western slope of South America.
9. Explain the rains of Guiana.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 13-14, 23-7, 103-4.

Frye's Advanced geography, 25-31, 141.

Tarr & McMurry, Introductory geography, 71-80.

Tarr & McMurry, Third Book, 28-34, 66-103, 112-13, 119, 136, 142-3.

FORMAL GEOGRAPHY OF SOUTH AMERICA.

Use the blackboard map (or a wall map) in conjunction with the political map in the text-book. By various interesting drills,* fix the following locations, together with the spelling concerned:

* These drills in locative geography should have the emulative spirit of games. The children never tire of any kind of drill work that is founded upon emulation. Below are given ten drills, or geography games, that have been found to wear well. They should in every case be conducted with snap and vim.

1. The teacher stands at the wall map and points out the features to be named. The class name them in concert.

2. She calls upon individual pupils to come up to the map and point out single features as she names them.

3. One pupil stands before the map and makes all the locations given in the lesson. His classmates watch critically; and if he makes a mistake he forfeits his place to the pupil discovering it.

4. Write a list of the features on the board beside the map. Allow each individual pupil to step to the board, point to a name, pronounce it, and locate the feature on the map.

5. Call on a pupil to name all of the features as you point them out on the map.

6. Sometimes allow a pupil to take your place as pointer-out.

7. The list of features being written on the board, allow each pupil, in turn, to stand, select a word, face about and spell it.

8. Have an old fashioned "spelling bee." Let the pupils line up in two rows, facing each other. The teacher now gives out the words (of the geography lesson) alternately to one side and to the other, each pupil having his turn, in order. A pupil misspelling his word goes to his seat and the word is given to the opposing side. The pupil finally remaining wins out for his side.

9. Have a locating "bee" on the same plan, substituting locations for spelling. In this game the teacher points out the feature on the map and the pupil whose turn it is names it. A variation of this is to spell the name after giving it. This makes it both a spelling and a location test.

10. Another spelling and location test: Provide each pupil with a spelling slip. Point out the features on the wall map without naming them. The pupils write the names, in order given, on their spelling slips. The mistakes made in this exercise should be made the basis for a future spelling lesson.

Atlantic and Pacific oceans; Caribbean Sea.

Isthmus of Panama, Magellan Strait, Cape Horn.

Andes Mts., Brazilian highlands, Guiana highlands; Bolivian plateau.

Amazon, Orinoco, La Plata rivers.

Equator, tropic of Capricorn; Antarctic Circle; torrid zone, south temperate zone.

Region and direction of trade-winds; region and direction of return trade-winds.

Brazil, Argentina, Chile, Peru, Bolivia, Ecuador, Colombia, Venezuela, British, Dutch, and French Guiana, Paraguay, Uruguay.

Buenos Aires, Rio Janeiro, Santiago, Para.

Test.—The correct filling of an outline map. (See foot-note, p. 14.)

THE PEOPLES OF SOUTH AMERICA.

Lesson Units.

1. Columbus, on his third voyage, discovered South America. 2. In the earliest division of South America Brazil fell to the share of Portugal, and all the rest to Spain. 3. Everywhere the Spaniards found Indians, and overcame them; it was the cruel Pizarro who conquered the Incas. 4. All the South American countries are republics, save the Guianas.

1. *Columbus, on his third voyage, discovered South America.*

REFERENCE MATERIAL:

Markwick & Smith, 10-12.

McMurry, *Pioneers on land and sea*, 151-2.

Also any school history.

Review, briefly, the discoveries of Columbus; how in his first two voyages he discovered the West Indies, but not the mainland; and how in his third voyage he came to the north coast of South America.

2. *In the earliest division of South America Brazil fell to the share of Portugal and all the rest to Spain.*

REFERENCE MATERIAL:

Markwick & Smith, 13-14, 174.

Ingersoll, 55-6.

Davis's *Physical geography*, 308.

Fiske's *Washington and his country*, 5-6.

Griffis, 100-101.

Tell the story of the dispute between Spain and Portugal, over the undiscovered lands of the earth; and of Pope Alexander's decree, which later resulted in Brazil falling to the share of Portugal and all the rest of South America to Spain. So to this day Portuguese is the language of Brazil and Spanish of the other republics.

3. *Everywhere the Spaniards found Indians, and overcame them; it was the cruel Pizarro who conquered the Incas.*

REFERENCE MATERIAL:

Markwick & Smith, 24-5, 32-4, 37-8, 57-60, 95-7, 117-20, 145-50, 155-7, 169-70, 205-7,
233-4, 286-8, 302-4.
Tarr & McMurry, Third Book, 108-10.
McMurry, 166.
Coe, 287-8.
Griffis, 20-7.

Present the idea, to the children, not alone of a conquest of the Incas, but of successive conquests, all over South America, of those aboriginal peoples of whom we speak collectively as Indians. Specialize only the story of the Incas, however, and let the children leave the topic with the Pizarro story uppermost in mind.

4. *All of the South American countries are republics, save the Guianas.*

REFERENCE MATERIAL:

Markwick & Smith, 25-21.
Tarr & McMurry, Third Book, 107-12.

Devote not more than one lesson to the story of how the various Spanish colonies rebelled, one by one, against the harsh rule of Spain, and set up as republics; and how the Portuguese colony of Brazil at length became first an empire and then a republic. Note, briefly, the three Guianas as the only colonies now remaining to Europe.

Written Work.

1. Who discovered South America?
2. Tell how South America was divided up.
3. Tell the story of Pizarro.
4. Describe the political divisions of South America.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 107-10.
Frye's Advanced geography, 57.
Tarr & McMurry, Introductory geography, 200.
Tarr & McMurry, Third Book, 107-11.

DESCRIPTIVE SOUTH AMERICA.

Note on Method.

In this descriptive geography work the aim is to bring out a few leading and essential aspects of each region studied, and to avoid drowning these essential things in a mass of valueless minutiae. To this end the device of *lesson units* is used.* It will be observed, below, that for each region a group of lesson units is set forth; and that, subsequently, each lesson unit is repeated by itself, in italics, together with the readings which are closely pertinent to it. These assembled units are, or should be, a potential description of the region, inclusive of all that is essential, for the purposes of ordinary culture, and eliminative of all which is not. The preparation for the lesson (or sometimes, lessons) upon the unit consists in the teacher doing this reading herself, so far as the books are accessible, and then selecting from it such readings for the pupils as seem adapted to their grade. The pupils thereupon do this assigned reading in immediate preparation for the lesson. It is not expected that either teacher or pupils will in every case be able to do all of the reading cited. The idea is to do all that circumstances will allow. In addition to the pupils' readings, others, more mature, are cited under each unit, for the teacher's further study. She should avail herself of this additional material as far as she is able, in order to become steeped in the local color of the region she is about to take up.

Both teacher and pupil, having now read generously upon the topic, the lessons open with the locating of the region on the continental map (the blackboard map?) and a quick review of the appropriate formal geography. Thenceforward the lessons become conversations, based chiefly on what the pupils have read, supplemented, as necessary, by what the teacher knows. In these lessons the questioning should elicit that material which is *pertinent to the lesson unit in hand*; and which is calculated to fortify the content of that unit indelibly in the pupil's conception of the region.

Following the conversational lesson, or lessons, upon the unit, comes a written lesson, the material of which aims to summarize and confirm the essentials of that particular lesson unit in the pupil's mind.

After all the units for the region have been dealt with in this way, the pertaining material in the text-book is utilized as a final summary and review. By this step the whole study becomes an elaboration of the text-book rather than a substitution for it.

Lesson Units.

AMAZON REGION.

1. The Amazon is the mightiest river in the world, and the largest body of fresh water on the globe. 2. Here are the selvas, far-reaching tropical forests, low-lying, and wet with equatorial rains. 3. They are the haunt

* An adaptation of McMurtry's device of lesson unities.

of wild beasts, and are populous with gaily feathered birds and gaudy butterflies; the waters swarm with alligators and turtles. 4. Except at the river stations there live no white men; none but the lonely, half-clad Indian threads the dim forest. 5. From the selvas come many useful articles of trade, but the chief of these is rubber; and Para is the great rubber port.

1. *The Amazon is the mightiest river in the world, and the largest body of fresh water on the globe.*

PUPILS' READINGS:

- Carpenter, 299-304 (the king of rivers); 320-7 (a trip on the Amazon).
 Hield, 92-5 (a storm on the Amazon).
 Hall, 82-5 (the great river).
 Herbertson, 92-7 (varied readings on the river itself).
 Markwick & Smith, 20 (the Amazon).
 Nelson, 9-14 (immensity of the river; the "bore"), 14-37 (exploring the river).
 Stockton, 287-97 (storm on the Amazon).
 Tarr & McMurry, Third Book, 112-13 (the vast Amazon).

TEACHER'S ADDITIONAL REFERENCE:

- Andrews, Agassiz, Ballou, Bates, Morris, Nery, Orton, Smith, Stephens, Vincent, Waterton, Ewbank.

Written Work.

Tell all you can about the vastness of the Amazon River.

2. *Here are the selvas, far-reaching tropical forests, low-lying, and wet with equatorial rains.*

PUPILS' READINGS:

- Allen 7-20 (the hot belt).
 Coe, 223-30 (the tropical forests).
 Carpenter, 300-03 (a wet country).
 Hield, 102-06 (vegetation and forests).
 Herbertson, 97-9, 102-03, 173 (selvas as a place to live).
 Kirby, 125-6 (the selvas).
 Markwick & Smith, 181-4 (selvas).
 Nelson, 58-207 (the forest scenery; the wetness).
 Rupert, 139-41, 157-9 (the tropical forest).
 Strange lands near home, 52-9 (luxuriant vegetation).
 Tarr & McMurry, 113-14 (the dense forest).

TEACHER'S ADDITIONAL REFERENCE:

- Adams, Andrews, Agassiz, Ballou, Bates, Ewbank, Ford, Hartwig, Morris, Nery, Orton, Smith, Stephens, Vincent, Waterton.

Written Work.

1. Tell about the scenery of the selvas.
2. Tell about the climate.
3. Compare the selvas with your own home as a place to live.

3. *They are the haunts of wild beasts, and are populous with gaily feathered birds and gaudy butterflies.*

PUPILS' READINGS:

- By Land and Sea, 92-7 (monkeys).
 Coe, 227-8 (swarms of insects).
 Carpenter, 239-49 (peccaries, monkeys, etc.).
 Hield, 128-39, 153-6 (wild animals and turtles).
 Herbertson, 100-01 (beasts and fishes).
 Joliboet, Glances, 131-2 (the ants), 148-52 (capture of a cayman), 152-7 (catching big snakes).
 Kirby, 96-9, 105-12, 114-20 (birds and beasts of the selvas).
 Markwick & Smith, 205-20 (forest animals, turtles, alligators, etc.).
 Nelson, 89-96 (catching alligators), 79-120 (turtle fishing), 43-58 (cats, monkeys, boa constrictor), 187-94 (toucans).
 Strange lands near home, 52-9 (animals of selvas).
 Stockton, 267-8 (turtles), 278-81 (monkeys).
 Tarr & McMurry, 105-7 (animal life of South America).

TEACHER'S ADDITIONAL REFERENCE:

Agassiz, Ballou, Bates, Ewbank, Ford, Hartwig, Morris, Nery, Orton, Smith, Stephens, Vincent, Waterton.

Written Work.

1. Tell about some of the wild beasts in the Amazon forest.
2. Tell about the birds and butterflies.
3. Tell about catching alligators and fishing for turtles.
4. *Except at the river stations there live no white men; none but the lonely, half-clad Indian threads the dim forest.*

PUPILS' READINGS:

Carpenter, 305-12 (Para), 320-7 (people along the river).
 Hield, 120-7, 157-60 (Amazon Indians).
 Herbertson, 104-5 (Amazon Indians, 62 (the white men are along the coast).
 Kirby, 92-6, 103-4, 145-6 (the Indians in the forest).
 Markwick & Smith, 201-3 (Para), 204 (Manaos), 205-7, 212-13 (Indians).
 Nelson, 44-8 (the natives hunting).
 Rupert, 192-6 (Indians), 149-56 (white men in the selvas).
 Shaw, 123-8 (Amazon Indians).
 Stockton, 42-53 (Amazon Indians).
 Starr, 28-32 (Indians).
 Tarr & McMurry, Third Book, 107-8 (people of the Amazons).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Andrews, Agassiz, Ballou, Bates, Ewbank, Ford, Hartwig, Morris, Nery, Orton, Smith, Stephens, Vincent, Waterton.

Written Work.

1. Tell about the distribution of white men and Indians in South America.
2. Try to state a reason for this distribution.
5. *From the selvas come many useful articles of trade, but the chief of these is rubber; and Para is the great rubber port.*

PUPILS' READINGS:

Coe, 230-7 (rubber).
 Carpenter, 305-20 (the rubber country), 305-12 (Para), 322-4 (brazil nuts, chocolate, etc.).
 Clifford, 127-33 (rubber, from tree to shoe).
 Chamberlain, Fed, 120-30 (cocoa).
 Chamberlain, Clothed, 107-28 (the rubber country).
 Hield, 66-9 (rubber).
 Herbertson, 105-10 (rubber), 108-10 (Para), 45-6 (a cocoa plantation).
 Hall, 199-204 (quinine).
 Kirby, Fireside, 88-92 (cocoa), 113-14 (rubber), 121-5 (Peruvian bark).
 Markwick & Smith, 208-11 (rubber), 187-90 (varied selva products).
 Nelson, 140-7 (rubber).
 Rupert, 142-6 (rubber gatherers).
 Tarr & McMurry, Third Book, 115-16, 134-5 (rubber and other selva products).
 Wood, 28-32 (story of rubber).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Andrews, Agassiz, Ballou, Bates, Ewbank, Ford, Hartwig, Morris, Nery, Orton, Smith, Stephens, Vincent, Waterton.

Written Work.

1. What is rubber and where does most of our rubber come from?
2. Tell the story of how rubber is gathered.
3. Tell what you have learned about Para.
4. Name several other products of the Amazon region.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 30, 104-7.
 Frye's Advanced geography, 140-2.
 Tarr & McMurry, Introductory geography, 201-2.
 Tarr & McMurry, Third Book, 52-5, 104-6, 113-16.

BRAZILIAN HIGHLANDS.

Lesson Units. (Read "Note on Method," page 53.)

1. This is the white man's Brazil; good-sized trading cities dot the coast. Rio Janeiro is second in size among the cities of the southern hemisphere, and has a magnificent harbor. 2. The region has varied products, but is best known for its coffee; over a half of the world's coffee crop is raised in the region back of Rio.

1. *This is the white man's Brazil; good-sized trading cities dot the coast. Rio Janeiro is second in size among the cities of the southern hemisphere, and also has a magnificent harbor.*

PUPILS' READINGS:

Carpenter, 249-57, 291-9 (the Brazilians), 267-82 (Rio and its harbor), 283-90 (Bahia).
Coe, 236-48 (cities of Brazil).
Herbertson, 62 (distribution of the white men), 111-13 (climate of Brazil), 113-16 (Brazilian highlands), 116-21 (cities of Brazil), 122-4 (a coffee plantation).
Markwick & Smith, 190-99 (Rio and other cities).
Rupert, 139-41 (climate of Brazil), 141-2 (bay of Rio), 146-9 (life in Rio).
Tarr & McMurry, Third Book, 117-118 (cities).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Andrews, Agassiz, Ballou, Ford, Morris, Slocum, Smith, Vincent.

Written Work.

1. In what part of Brazil is most of the white population? Try to give a reason for this.
2. Tell several things you know about Rio Janeiro.

2. *The region has varied products, but is best known for its coffee; over one-half of the world's coffee is raised in the region back of Rio.*

PUPILS' READINGS:

Allen, 79-97 (coffee).
Beal, 256-61 (history of coffee).
Coe, 246-7 (coffee).
Chamberlain, Fed, 104-12 (coffee).
Carpenter, 257-67 (coffee), 289-90 (diamonds).
Clifford, 249-62 (diamonds).
Hall, 197-8 (coffee).
Hield, 100-62 (coffee), 107-111 (diamonds).
Herbertson, 118-24 (coffee).
Kirby, 120-1 (diamonds).
Markwick & Smith, 185-8 (coffee).
Tarr & McMurry, Third Book, 116-17 (coffee).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Andrews, Agassiz, Ballou, Ford, Morris, Slocum, Smith, Vincent.

Written Work.

1. Write a little account of Rio coffee.
2. Sketch a map showing in what part of Brazil the coffee district lies.
3. Tell what you have learned about Brazilian diamonds.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Rodney's Advanced geography, 168.
Lacey's Advanced geography, 46.
Tarr & McMurry, Third Book, 116-17.
Tarr & McMurry, introductory geography, 262.

NORTHERN SOUTH AMERICA.

(Read "Note on Method," page 53.)

Lesson Units.

1. The Orinoco is one of the great rivers of the world. It flows through a region of treeless plains called llanos. 2. The Guianas and Trinidad are the only South American colonies left to Europe. 3. Colombia and Venezuela are unprogressive, thinly settled countries, with their capitals remotely placed in the high mountains. 4. Panama is now a republic, independent of Colombia. 5. The great Panama canal is now being dug across the Isthmus.

1. The Orinoco is one of the great rivers of the world. It flows through a region of treeless plains called llanos.

PUPILS' READINGS:

Coe, 314-16 (Orinoco and llanos).
 Carpenter, 327-34 (the Orinoco and llanos).
 Hield, 141-2, 170 (llanos).
 Herbertson, 72-8 (the Orinoco).
 Johonnot, Reader, 229-33 (the llanos).
 Kirby, Fireside, 137-9 (llanos and alligators of Orinoco).
 Markwick & Smith, 21-3, 48-56 (Orinoco and llanos).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Ford, Hartwig, Morris, Vincent.

Written Work.

1. Locate and describe the Orinoco River.
2. Tell what you have learned about the llanos.

2. The Guianas and Trinidad are the only South American colonies left to Europe.

PUPILS' READING:

Coe, 321-4 (the Guianas).
 Carpenter, South America, 342-50 (in the Guianas).
 Carpenter, Australia and Islands, 321-9 (Trinidad).
 Hall, 196-7 (monkeys of Guiana).
 Hield, 143-64 (the colonies; people of Guiana).
 Herbertson, 78-91 (short readings on British Guiana), 33-4 (pitch lake of Trinidad).
 Johonnot, Glimpses, 39, 381-6, 401-6 (trees and animal life of Guiana).
 Kellogg, Australia and islands, 226-33 (Trinidad).
 Markwick & Smith, 327-32 (the Guianas), 332-4 (Trinidad).
 Tarr & McMurry, Third Book, 126-7 (the Guianas).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Ford, Hartwig, Morris, Vincent.

Written Work.

1. Name and locate the three Guianas. Tell what you have learned about them.
2. Describe Trinidad.

3. Colombia and Venezuela are unprogressive, thinly settled countries, with their capital cities remotely placed in the high mountains.

PUPILS' READINGS:

By land and sea, 77-81 (a Venezuelan railway).
 Coe, 308-12 (Colombia and Bogota), 313-20 (Venezuelan cities).
 Carpenter, 29-38 (Colombia and Bogota), 334-42 (Venezuela and Caracas).
 Hield, 165-78 (the northern countries).

Herbertson, 63-72 (short readings on Venezuela), 165-6 (Magdalena River), 167-9 (Bogota).
 Johnnot, Reader, 383-90 (wilds of Venezuela).
 Markwick & Smith, 31-56 (Colombia described), 63-73 (Venezuelan cities), 73-94 (life in Venezuela), 88-94 (products of Venezuela).
 Rupert, 164-9 (bad government in Colombia).
 Starr, 28-32 (the natives).
 Strange lands near home, 44-51 (a Venezuelan railway).
 Tarr & McMurry, Third Book, 127-9 (Venezuela).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Davis, Ford, Hartwig, Morris, Vincent.

Written Work.

1. Locate and describe Bogota.
2. Tell about the Magdalena River.
3. Locate and describe Caracas.
4. Compare Colombia and Venezuela with our own republic.

4. *Panama is now a republic, independent of Colombia.*

MAGAZINE ARTICLES:

Current Literature, Jan. '04, 2-4 (the people of Panama and their revolution), 30-35 (youngest and weakest of nations).
 World's Work, Jan. '04 (the revolution).
 Review of Reviews, March '04, 329-34 (the cities of Panama and Colon; the backward Panamans and their country; action of the United States; the Panama railway).
 Independent, Jan. 7, '04 (the primitive, unprogressive country).

Written Work.

1. Locate and describe the Republic of Panama.
2. Tell something about the revolution which freed it from Colombia.
3. Compare the cities of Panama and Colon with cities in our own country.
5. *The great Panama canal is now being dug across the Isthmus.*

PUPILS' READINGS:

Coc, 312-13 (failure of the French company).
 Carpenter, North America, 351-2 (the canal region).
 Carpenter, South America, 9-16 (from New York to Panama), 16-29 (the Panama country).
 Herbertson, 54-6 (across the Isthmus).
 Johnnot, Reader, 89-90 (Panama country).
 Markwick & Smith, 49-50 (Panama canal).
 Rupert, 133-5 (the canal route described).
 Tarr & McMurry, Third Book, 392-3 (the canal route).

MAGAZINE ARTICLES:

St. Nicholas, March '04, 398-406 (story of the canal).
 Scientific American, July 23 '04, 58-9 (relies of the Frenchmen's failure).
 World's Work, Feb. '04 (what the Panama canal means to the world).
 Review of Reviews, 329-34 (the canal route, etc.).

Written Work.

1. What will be the use of the Panama canal? Locate the canal.
2. Tell about the French company's attempt to build it.
3. Tell about the trouble in getting workmen.
4. What is the "Canal Zone"?
5. What has our government to do with the canal project?

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Rodway's Advanced geography, 116-11.
 Fry's Advanced geography, 140-1, 144.
 Tarr & McMurry, Third Book, 125-33.
 Tarr & McMurry, Introductory geography, 202-3.

LA PLATA REGION.

Lesson Units. (Read "Note on Method," page 53.)

1. A succession of far-reaching grassy plains called pampas; the home of vast herds of cattle and the South American cowboy. 2. A great commercial region, with railroads and large cities; Buenos Aires is the largest city in the southern hemisphere. 3. The great exports are cattle products and wheat.

1. A succession of far-reaching grassy plains, called pampas; the home of vast herds of cattle, and the South American cowboy.

PUPILS' READINGS:

Coe, 257-9 (the pampas), 259-63 (life of the gaucho).
 Carpenter, 174-7 (the pampas), 177-81 (ranches and gauchos), 182-7 (the provinces of Argentina), 234-7 (mate).
 Hield, 194-208 (the pampas and the gauchos).
 Herbertson, 139 (mate), 142-5 (the provinces), 145-52 (the pampas), 152-4 (life of the gaucho).
 Johannot, Reader, 226-9 (the gauchos).
 Kirby, 140-2 (the pampas).
 Markwick & Smith, 213-15 (the gauchos), 234-8, 256-65 (the provinces of Argentina), 248-55, 270-72 (home life in Argentina).
 Rupert, 170-71 (mate, or tea).
 Tarr & McMurry, Third Book, 120-21 (the vast cattle ranges), 125 (mate).
 Wood, 1-7 (life of the gaucho).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Bishop, Morris, Slocum, Spear, Vincent.

Written Work.

1. Describe the pampas.
2. Tell something of the gaucho and his life.
3. Tell about mate.

2. A great commercial region, with railroads and large cities; Buenos Aires is the largest city in the southern hemisphere.

PUPILS' READINGS:

Coe, 249-50 (the La Plata River), 263-5 (busy Buenos Aires), 254-7 (Uruguay and Montevideo), 250-4 (people of Paraguay).
 Carpenter, 192-200 (Buenos Aires), 201-8 (Uruguay and Montevideo), 208-17 (up the Parana), 218-41 (the fruitful land of Paraguay).
 Herbertson, 126-7 (La Plata estuary), 127-30 (Montevideo and life in Uruguay), 133-6 (up the Parana), 136-40 (Paraguay), 141-2 (Buenos Aires), 62 (the great population).
 Markwick & Smith, 20, 256-7 (the La Plata River), 239-47 (Buenos Aires), 265-72 (industries of Argentina), 293-300 (Montevideo and the people of Uruguay), 276-86 (people of Paraguay).
 Rupert, 188-91 (Argentina's transcontinental railroad).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Bishop, Morris, Slocum, Vincent.

Written Work.

1. Locate and describe the La Plata River.
2. Locate and describe Buenos Aires.
3. Locate and describe Montevideo.
4. Compare this La Plata region with the rest of South America as to population and commerce.

3. *The great exports are cattle products and wheat.*

PUPILS' READINGS:

- Coe & Crow, 79-81 (hides from Argentina).
 Carpenter, 188-92 (the wheat of Argentina).
 Herbertson, 130-2 (the great meat trade).
 Markwick & Smith, 295-9 (cattle of the La Plata countries).

TEACHERS' ADDITIONAL REFERENCE:

Adams, Bishop, Vincent, Ballou.

Written Work.

1. What are the great exports of the La Plata countries?
2. Tell about the frozen meat trade.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

- Redway's Advanced geography, 109.
 Frye's Advanced geography, 144.
 Tarr & McMurry, Third Book, 118-25.
 Tarr & McMurry, Introductory geography, 203-4.

PATAGONIA AND "THE LAND OF FIRE."

(Read "Note on Method," page 53.)

Lesson Units.

1. Patagonia is a dry, barren, and almost uninhabited land. 2. Tierra del Fuego is an archipelago, cold, bleak, and lonely; two of its features are Cape Horn and the stormy strait of Magellan.

1. *Patagonia is a dry, barren, and almost uninhabited land.*

PUPILS' READINGS:

- Coe, 206-8 (Indians and rheas).
 Carpenter, 167-73 (Patagonia described; "ostriches," etc.).
 Hild, 208-18 (Patagonia, Indians, "ostriches," etc.).
 Hall, 204 (Patagonia).
 Herbertson, 154-7 (Patagonia).
 Kirby, 132-7 (Patagonia).
 Markwick & Smith, 233-4 (the Patagonians).
 Report, 192-6 (Indians of Patagonia).
 Shaw, 92-7 (Patagonia, ostriches, etc.).
 Starr, 28-32 (Indians of Patagonia).

TEACHERS' ADDITIONAL REFERENCE:

Allen, Ballou, Bishop, Morris, Spear, Slocum, Vincent.

Written Work.

1. Locate Patagonia and describe the country.
2. Tell about the Indians of Patagonia.
3. Tell about the ostriches, and how they are caught.

2. *Tierra del Fuego is an archipelago, cold, bleak, and lonely; two of its features are Cape Horn and the stormy strait of Magellan.*

PUPILS' READING:

- Coe, 29-7 (the Strait, and Tierra del Fuego).
 Carpenter, South America, 151-9 (Strait of Magellan), 159-62 (the southernmost town on earth), 171-6 (the Fuegians), 162-7 (Tierra del Fuego).
 Carpenter, Australia and islands, 383-4 (the Falklands).
 Hild, 17-8 (Fuegiens).

Herbertson, 157-9 (Tierra del Fuego), 159-62 (Falkland Islands).

Ingersoll, 69-70 (story of Magellan).

Kellogg, 431-6 (Tierra and Falklands).

McMurtry, 165-77 (Magellan's great voyage).

Markwick & Smith, 18-19 (Tierra del Fuego), 334 (the Falklands).

Sailing alone around the world, by Captain Joshua Slocum, contains unusually interesting reading on Magellan's Strait, the Fuegians, Punta Arenas, etc.

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Slocum, Spear, Vincent.

Written Work.

1. Locate and bound Tierra del Fuego. What does the name mean?
2. Tell how the strait was discovered.
3. Describe the strait, and the country about it.
4. Name and locate the southernmost town in the world.
5. Describe the location of Cape Horn.
6. Tell what you have learned about the Falkland Islands.

THE HIGH ANDES.

(Read "Note on Method," page 53.)

Lesson Units.

1. The highest mountain land in the world, outside of Asia; with crests of eternal snow and plateaus that are cool and pleasant. 2. Here lived the Incas of old, whom Pizarro overthrew. 3. There are rich mines of gold and silver, and llamas are the beasts of burden.

1. The highest mountain land in the world, outside of Asia; with crests of eternal snow and plateaus that are cool and pleasant.

PUPILS' READINGS:

Coe, 268-70 (the high Andes), 301-2 (Lake Titicaca), 303-8 (Quito, a mountain city).

Carpenter, 115-23 (the Chilean Andes), 44-50 (Peruvian Andes), 67-81 (the northern Andes), 29-39 (physical Ecuador and Colombia), 81-6 (Lake Titicaca), 87-94 (Bolivian Andes).

Hall, 65-8 (the Andes).

Hield, 180-4 (volcanoes), 202-3 (condors).

Herbertson, 166-72 (the Colombian Andes), 167-9 (Bogota, an Andean city), 172-9 (Andes of Ecuador), 183-4 (Andes of Peru), 196-7, 211-24 (Chilian Andes), 94-6 (Bolivian Andes), 190-6 (Bolivian plateau), 225-6 (condors).

Johonnot, Reader, 63-9 (Lake Titicaca).

Kirby, Fireside, 142-5 (climbing the Andes).

Markwick & Smith, 161-4 (Bolivian Andes), 120-44 (cities and mountains of Peru), 17-18 (the Andes in general), 101-5 (Quito), 110-17 (Andes of Ecuador).

Rupert, 171-7 (in and about Quito).

Stockton, 125-7 (the condor), 130-39 (snowstorm in the Andes), 269-72 (volcanoes).

Tarr & McMurtry, Third Book, 129-45 (the Andean countries).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Bishop, Conway, Davis, Morris, Vincent, Whympers, Orton, Hartwig.

Written Work.

1. Where are the Andes? How do they rank in height?
2. Describe Quito and its climate. Explain the climate.
3. Tell about the Bolivian plateau and Lake Titicaca.
4. Tell about the condors and the region they like to live in.

2. *Here lived the Incas of old, whom Pizarro overthrew.*

PUPILS' READINGS:

- Coe, 287-9 (the Incas).
 Carpenter, 80-86 (Inca relics at Lake Titicaca), 48-58, 78-81 (descendants of the Incas).
 Hield, 74-88 (ruins in Bolivia).
 Johnnot, Reader, 63-9 (Lake Titicaca and the Indians), 306-9 (roads of the Incas).
 Johnnot, Stories, 28-39 (Pizarro and the Incas).
 Markwick & Smith, 95-7, 117-19, 148-57 (Pizarro and the Incas).
 Rupert, 26-8 (Incas of Peru).
 Starr, 26-8 (the Incas).
 Tarr & McMurry, Third Book, 108-9 (the Incas).
 Rocheleau, Minerals, 165-6 (Pizarro and the Incas).

TEACHER'S ADDITIONAL REFERENCE:

Ballou, Conway, Morris, Vincent, Whympcr.

Written Work.

1. Tell the story of Pizarro and the Incas.
2. What relics of the Incas are still to be seen?
3. Tell about the descendants of the Incas.

3. *There are rich mines of gold and silver, and llamas are the beasts of burden.*

PUPILS' READINGS:

- Coe, 299-300 (llamas).
 Carpenter, 74-7, 141-4, 175-6 (llamas), 95-100 (mines of the Andes).
 Hield, 50-60 (gold and silver mines), 70-3 (llamas).
 Herbertson, 184-7 (llamas).
 Kirby, 146-50 (llamas).
 Markwick & Smith, 127-37, 169-73 (the mines of the Andes), 131-2 (llamas).
 Parker, 230-7 (silver of Potosi).
 Strange lands near home, 89-92 (llamas).
 Rocheleau, Minerals, 165-6 (the gold of the Incas).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Bishop, Conway, Morris, Orton, Slocum, Spear, Vincent, Whympcr.

Written Work.

1. Tell what you have learned about llamas.
2. Tell about the gold and silver of the Andes.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

- Reedway's Advanced geography, 103, 110-11.
 Frye's Advanced geography, 137-8.
 Tarr & McMurry, Third Book, 96-100, 107-9, 129-42.
 Tarr & McMurry, Introductory geography, 204.

THE WEST SLOPE.

Lesson Units. (Read "Note on Method," page 53.)

1. The west slope is wet in the north and south, and a desert between.
2. The Chileans are the most progressive people of the west slope; they have well-built cities and a busy trade.

1. *The west slope is wet in the north and south, and a desert between.*

PUPILS' READINGS:

- Carpenter, 50-3 (the desert of Atacama), 52-3, 100-10 (the two climates of Chile), 137-44 (the wetness of southern Chile), 102-7 (the nitrate desert).
 Hield, 45-8 (the guano country).

Herbertson, 182-3, 207-11 (the Atacama desert), 200-2 (the wet south), 202-4 (climate of Chile).
Tarr & McMurry, Third Book, 100-3 (causes of Chile's climate).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Bishop, Hartwig, Morris, Orton, Vincent.

Written Work.

1. Describe the west coast climate.
2. Tell about the two climates of Chile.

2. *The Chileans are the most progressive people of the west slope; they have well-built cities and a busy trade.*

PUPILS' READINGS:

Carpenter, 38-43 (Guayaquil), 54-8 (Peruvian farmers), 58-68 (Lima), 100-7 (the nitrate desert of Chile), 108-15, 123-30 (two Chilean cities), 115-23 (a railroad in Chile), 130-7 (farmers of Chile), 144-50 (Chilean coal), 137-44 (southern Chile).
Coe, 274-85 (people of Chile), 289-99 (impoverished Peru).
Herbertson, 197-202 (Chile described), 205-6 (Chilean cities), 211-24 (passes across the mountains).
Hield, 50-60 (people of Chile).
Markwick & Smith, 105-9 (Guayaquil), 129 (Callao), 137-44 (Lima), 318-27 (the Chileans and their cities), 312-18 (the nitrate deposits).
Rupert, 185-8 (Valparaiso), 188-91 (traveling in Chile).
Tarr & McMurry, Third Book, 144-5 (progressive Chile), 143-4 (the nitrate beds).

TEACHER'S ADDITIONAL REFERENCE:

Adams, Ballou, Bishop, Conway, Hartwig, Morris, Vincent, Redway, New Basis, p. 99.

Written Work.

1. Tell what you have learned about the people of Chile, and their cities.
2. Describe the nitrate industry.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 109-10.
Frye's Advanced geography, 144.
Tarr & McMurry, Third Book, 133-45.
Tarr & McMurry, Introductory geography, 204-5.

BOOKS CITED IN THE READINGS ON NORTH AMERICA.

List I. (Books especially adapted for supplementary reading.)

Allen, Children of the palm lands.....	Ed. Pub. Co. 50c.
Andrews, Seven little sisters.....	Ginn & Co. 50c.
Andrews, Each and all.....	Ginn & Co. 50c.
Andrews, Stories Mother Nature told.....	Ginn & Co. 50c.
Andrews, Ten boys on the road.....	Ginn & Co. 50c.
Beal, Information reader No. 1.....	Boston School Sup. Co. 60c
Bradish, Stories of country life.....	American Book Co. 45c.
Brooks, Century book for young Americans.....	Century Co. \$1.50.
Blaisdell, Child life in many lands.....	Macmillan. 36c.
Companion series, Greater America.....	Perry, Mason Co. 50c.
Companion series, Our country west.....	Perry, Mason Co. 50c.
Companion series, Our country east.....	Perry, Mason Co. 50c.
Companion series, Talks about animals.....	Perry, Mason Co. 50c.
Companion series, By land and sea.....	Perry, Mason Co. 50c.
Carpenter, Geographical reader: North America...	American Book Co. 60c.
Carpenter, Australia and islands of the sea.....	American Book Co. 60c.
Chamberlain, How we are fed.....	Macmillan. 40c.
Chamberlain, How we are clothed.....	Macmillan. 40c.
Clifford, Information reader No. 2.....	Boston School Sup. Co. 60.
Chase & Clow, Stories of industry, Vol. I.....	Ed. Pub. Co. 40c.
Chase & Clow, Stories of industry, Vol. II.....	Ed. Pub. Co. 40c.
Carver & Pratt, Our Fatherland.....	Ed. Pub. Co. 50c.
Carroll, Around the world, Book II.....	Morse Co. 50c.
Carroll, Around the world, Book III.....	Morse Co. 50c.
Coe, Our American neighbors.....	Silver Burdett. 60c.
Dodge, A reader in physical geography.....	Longmans, Green & Co.
DuChaille, Land of the long night.....	Scribner. \$2.00.
Eggleston, Stories of American life and adventure..	American Book Co. 50c.
Ed. Pub. Co., Children of the world.....	Ed. Pub. Co.
Frost, Modern explorers.....	Cassell. \$1.00.
Fairbanks, Home geography.....	Ed. Pub. Co. 60.
Fairbanks, Story of our Mother Earth.....	Whitaker & Ray Co. 50c.
George, Little journeys: Mexico and Canada.....	A. Flanagan, Chicago. 50c.
George, Little journeys: Cuba and Porto Rico.....	A. Flanagan, Chicago. 50c.
Horton, The frozen north.....	Heath. 40c.
Hall, Our world reader.....	Ginn & Co. 50c.
Herbertson, North America.....	Black. 75c.
Herbertson, Central and South America.....	Black. 70c.
Ingersoll, The book of the ocean.....	Century Co. \$1.50.
Johannot, Stories of other lands.....	American Book Co. 40c.
Johannot, Glimpses of the animate world.....	American Book Co. \$1.00.
Johannot, Geographical reader	American Book Co. \$1.00.
Jordan, True tales of birds and beasts.....	Heath. 40c.
Jordan, Matka and Kotik.....	Whitaker & Ray Co. \$1.50.
Kellogg, Australia and islands of the sea.....	Silver Burdett. 68c.
King, Geographical reader, Book II.....	Lee & Shepherd. 72c.
King, Geographical reader, Book III.....	Lee & Shepherd. 56c.
King, Geographical reader, Book IV.....	Lee & Shepherd. 56c.

King, Geographical reader, Book V.....	Lee & Shepherd. 56c.
Kirby, Aunt Martha's corner cupboard.....	Flanagan. 50c.
Kirby, The world by the fireside.....	Nelson. \$1.75.
McMaster, Primary history of the United States...	American Book Co. 60c.
McMurry (Charles), Pioneers on land and sea....	Macmillan. 40c.
Muller, Little people of the snow.....	American Book Co. 35c.
Mowry, American inventors and inventions.....	Silver Burdett. 65c.
Miln, Little folks of many lands.....	Scribner. \$4.00.
Pratt, America's story for America's children.....	Heath. 40c.
Pratt, Stories of Massachusetts.....	Ed. Pub. Co. 60c.
Pratt, Northern Europe.....	Ed. Pub. Co. 40c.
Pratt, Cortez and Montezuma.....	Ed. Pub. Co. 30c.
Parker, Information reader No. 3.....	Boston School Sup. Co. 60c.
Rocheleau, Products of the soil.....	A. Flanagan. 50c.
Rocheleau, Minerals.....	A. Flanagan. 50c.
Rupert, Geographical reader.....	Leach, Shewell & Son. 65c.
Starr, Strange peoples.....	Heath. 40c.
Schwatka, Children of the cold.....	Ed. Pub. Co. \$1.25.
Schwatka, Land of cave and cliff-dwellers.....	Ed. Pub. Co. \$1.25.
Shaw, Big people and little people.....	American Book Co. 30c.
Stockton, Tales out of school.....	Scribner. \$1.50.
Scandlin, Hans the Eskimo.....	Silver Burdett. 42c.
Shaler, Story of our continent.....	Ginn & Co. 75c.
Shaler, First book in geology.....	Heath. 60c.
Smith (Mary), Eskimo stories.....	Rand-McNally. 35c.
Smith (Minna), Our own country.....	Silver Burdett. 50c.
Sexton, Stories of California.....	Macmillan. 60c.
Seabury, Porto Rico.....	Silver Burdett Co. 50c.
Tarr & McMurry, Geography: Second Book (North America)	Macmillan. 75c.
Tarr & McMurry, Geography: Third Book (Europe and other countries).....	Macmillan. 75c.
Tarr & McMurry, Geography: New England Supplement	Macmillan.
Tarr & McMurry, Geography: New York Supplement	Macmillan.
Tarr & McMurry, Geography: Virginia Supplement	Macmillan.
Tarr & McMurry, Geography: Texas Supplement..	Macmillan.
Tarr & McMurry, Geography: Pennsylvania Supplement	Macmillan.
Tarr & McMurry, Geography: Ohio Supplement...	Macmillan.
Tarr & McMurry, Geography: Kansas Supplement..	Macmillan.
Tarr & McMurry, Geography: Utah Supplement...	Macmillan.
Tarr & McMurry, Geography: California Supplement	Macmillan. 30c.
Wade, Our little Eskimo cousin.....	L. C. Page & Co. 50c.
Wade, Our little Cuban cousin.....	L. C. Page & Co. 50c.
Wade, Our little Porto Rican cousin.....	L. C. Page & Co. 50c.
Wood, Primer of political economy.....	Macmillan. 50c.
Winterburn, The Spanish in the southwest.....	American Book Co. 55c.
Youth's Companion series, The wide world.....	Ginn & Co. 25c.
Youth's Companion series, Strange lands near home.	Ginn & Co. 25c.
Youth's Companion series, Industries of to-day....	Ginn & Co. 25c.

List II. (Books useful for teacher's readings, but not easily broken up into assigned readings for pupils.)

Adams, Commercial geography.....	Appleton. \$1.30.
Brigham, Geographical influences in American history	Ginn & Co. \$1.25.
Ballou, Footprints of travel.....	Ginn & Co. 80c.
Ballou, Aztec land.....	Houghton, Mifflin & Co. \$1.50.
Ballou, The New El Dorado.....	Houghton, Mifflin & Co. \$1.50.
Blake & Sullivan, Mexico.....	Lee & Shepherd. \$1.25.
Chisholm, Handbook of commercial geography....	Longmans, Green & Co. \$4.00.
Davis, Physical geography.....	Ginn & Co. \$1.25.
Dryer, Lessons in physical geography.....	American Book Co. \$1.20.
DuChaillu, Land of the midnight sun, Vols. I, II..	Harper. \$5.00.
Eggleston, Montezuma	Dodd, Mead & Co. \$1.00.
Frye, Advanced geography.....	Ginn & Co. \$1.25.
Greene, Coal and the coal mines.....	Houghton, Mifflin & Co.
Gilbert & Brigham, Introduction to physical geography	Appleton.
Hough, Story of the cowboy.....	Appleton. \$1.50.
Lummis, Some strange corners of our country....	Century Co. \$1.50.
Lummis, A New Mexico David.....	Scribner. \$1.25.
Muir, Mountains of California.....	Century Co. \$1.50.
Oxley, Romance of commerce.....	Crowell. \$1.25.
Ralph, Dixie.....	Harper. \$2.50.
Redway, New basis geography.....	Macmillan. \$1.00.
Redway, Advanced geography.....	American Book Co. \$1.40.
Smith (F. Hopkinson), A white umbrella in Mexico	Houghton, Mifflin & Co. \$1.50.
Stoddard, Lectures: Mexico.....	Balch. \$3.00.
Stoddard, Lectures: Canada.....	Balch. \$3.00.
Stoddard, Lectures: California; Grand Cañon; Yellowstone Park	Balch. \$3.00.
Shaler, Aspects of the earth.....	Scribner. \$2.50.
Vincent, In and out of Central America.....	Appleton. \$2.00.

THE CONTINENT OF NORTH AMERICA.

PHYSICAL NORTH AMERICA.

For these physical studies there is no material suitable for use as supplementary reading by the pupils. Therefore, while the device of lesson units is made use of here, as in the descriptive work, the readings cited are all intended for the teacher herself.

Lesson Units. STRUCTURE.

1. North America has four great parts—three plateaus and a central lowland. The central lowland projects an arm to the east and forms the Atlantic coastal plain. 2. North America has a broken coast-line, with many good harbors; and her rivers open navigation into the heart of the continent. 3. The northern half of North America was long ago invaded by a great ice-sheet; and most of the lakes are a product of this glacial period.

1. North America has four great parts—three plateaus and a central lowland. The central lowland projects an arm to the east and forms the Atlantic coastal plain.

TEACHER'S READING:

Brigham, 70-87, 173-82.
Shaler, Story of our continent, 90-102.
Shaler, First book in geology, 107-12.
Davis, 117-26, 129-36, 161-74, 188-95, 292-5, 350-4.
Dryer, 68-80, 178-89, 229-38.
Gilbert & Brigham, 57-60, 151-4, 155-8, 160-7, 168-79, 179-85.
Redway, New basis, 96-7.
Redway's Advanced geography, 45-6, 49-53, 10.
Frye's Advanced geography, 8, 17-18, 64-71.
Tarr & McMurry, Second Book, 5-10.
Tarr & McMurry, Pennsylvania Supplement, 3-12.
Tarr & McMurry, Texas Supplement, 3-13.
Herbertson, North America, xiv-xxi.
Dodge, 19-23, 76-80, 89-96, 137-53.

In preparation for the physical study of North America draw on the black-board a mass map of the continent. This map is to be preserved for reference throughout the teaching of North America. (Fig. 1.) Beside the map draw three profiles on parallels, on parallels 60, 40, and 20 north. (Fig. 6.)

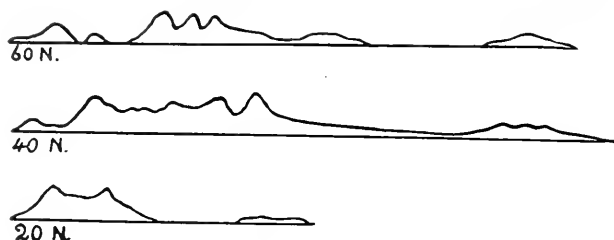


Fig. 6. Profiles of North America.

In this study the pupils will open their text-books to the physical map of North America. The lessons will utilize this text-book map, the blackboard map, and the profiles, in conjunction.

Have the pupils discover what the colors of the map mean, by reading the explanation in the lower corner. Let them locate and name the four great features—the Rocky Mountain highland, the Appalachian highland, the Laurentian highland, and the central lowland (with its extension, the Atlantic plain).

Let individual pupils now step to the blackboard map and locate the same features, while the class watch critically. Repeat this with various pupils until the text-book map and the blackboard map become mutually interpretative.



Fig. 7. If North America should subside a thousand feet.

Explain the meaning of your blackboard profiles and have individuals come up and point out in them the Rocky Mountain highland (or plateau:

use the terms interchangeably), the Appalachian plateau, the central lowland, and the Atlantic plain.

Regard the lowlands as being less than 1,000 feet in elevation and the highlands, or plateaus, as being 1,000 feet or over. Elicit that if the continent should sink 1,000 feet into the sea the three plateaus would become islands. On the blackboard draw a rough outline of North America and have individual pupils come up and draw, within it, the coast-lines of these three islands as they would then appear. (Fig. 7).

Elicit the difference between a plateau and a mountain and have each form pointed out in the profiles.

Elicit that the Rocky Mountain plateau is greatly longer, broader, and higher than either of the eastern plateaus. Denver is about a mile in elevation (5,200 feet), and this may be taken roughly as the average for the plateau. In Mexico it is higher; the City of Mexico is in a plateau valley 7,500 feet in elevation. The Appalachian and Laurentian plateaus are, roughly, only 2,000 feet in altitude.

Compare some of the high peaks of the Rockies with those of the Appalachians (in round figures): Pike's Peak, Colorado, 14,000 ft.; Popocatepetl, Mexico, 17,000; McKinley, Alaska, 20,000. Mt. Washington, New Hampshire, 6,300; Mitchell, North Carolina, 6,700. Note that the City of Mexico, on the plateau floor, has a greater elevation than any *peak* of the Appalachians.

How do the plateau and peak elevations of the Rockies compare with those of the Andes? (See p. 44.)

On the text-book map let the pupils trace the central plain from the Gulf to the Arctic coasts. Where is it narrowest? What four great rivers lie in this plain? (Mississippi, St. Lawrence, Nelson, Mackenzie.) Locate and describe each (source, direction of flow, and receiving body of water). Trace the Atlantic plain and describe its location. Let individual pupils indicate these features on the blackboard map.

Let the class trace the divide of the St. Lawrence basin, separating it from other basins. Note that nearly everywhere this divide is less than 2,000 feet in elevation, remarkably low for a great river basin. Compare with western divide of the Mississippi basin.

Written Work.

1. Name the four great features of North America.
2. If the continent sank a thousand feet into the sea how would its coast-lines change?
3. By means of a diagram show the difference between a plateau and a mountain.
4. Compare the Rocky Mountain plateau with the Appalachian plateau.
5. About how high is the Rocky Mountain plateau? Where is it highest?
6. Compare the Rockies with the Andes in elevation.

2. *North America has a broken coast-line, with many good harbors; and her rivers open navigation into the heart of the continent.*

TEACHER'S READING:

Dryer, 95, 227-9.
 Brigham, 53-6, 72-4, 105-6, 127-41.
 Gilbert & Brigham, 10-11, 302-16.
 Davis, 95-7, 105-7, 296.
 Shaler, *Aspects*, 7-9.
 Shaler, *Story of our continent*, 84-8, 102-12, 247-9.
 Chisholm, 382-3.
 Adams, 17, 18, 19, 22-6, 38, 45, 149-53, 157-61.
 Redway, *New basis*, 96-7, 83-8.
 Redway's *Advanced geography*, 10-11, 21.
 Tarr & McMurry, *Second Book*, 19-21, 124-6.
 Tarr & McMurry, *Texas Supplement*, 3-5.
 Tarr & McMurry, *California Supplement*, 10-14.
 Frye's *Advanced geography*, 12-13, 59.
 Herbertson, *North America*, xvii, xx-xxi.
 Ralph, 1-43.
 Channing (*Students' history United States*), 11-15.
 Dodge, 11-13, 105-8, 89-96, 165-70.
 Oxley, 190-96 (the possibilities of Hudson's Bay).

With the blackboard map and the text-book political map before the pupils, teach that river steamers operate as far up as St. Paul, on the Mississippi;* Fort Benton, Montana, on the Missouri; and Pittsburg on the Ohio; and that steamers of the largest type traverse every part of the Great Lakes. The falls and rapids in the St. Lawrence are remedied by canals, and cargoes are sent from the Great Lakes to the sea. Note Duluth and Chicago as the heads of navigation in the Lake basin. The Atlantic and Gulf rivers are navigable to the beginning of the highlands.

In teaching about the coast-line and harbors, use the detailed maps of sections, in the text-book (New England section, Gulf section, etc.). Talk a little with the class about the significance of good harbors. Specifically, what is a harbor? A sheltered bay or inlet where vessels may load and unload, or ride at anchor without fear of storms. Elicit that without suitable harbors a country cannot partake in ocean trade.

Show that the Atlantic coast of the United States has many fine harbors, from Maine to Chesapeake Bay; while the Pacific Coast has only two harbors of the finest type—San Francisco Bay and Puget Sound. The Columbia estuary is of ample dimensions, but is fronted by a dangerous bar. Teach about "drowned rivers," or fiords, of which most of these harbors are types.

Show that our Southern States have no really good harbors south of Norfolk; the reason being that the Atlantic plain continues out under the sea, making shallow coast waters, with sandbars across the river mouths. Albemarle and Pamlico sounds look like great harbors on the map, but they are shallow inlets behind sandbars, and useful only in the coasting trade, where small vessels are used. New Orleans has a good harbor, but it is not, strictly speaking, a coast harbor, being a hundred miles up the river. Galveston's busy harbor is largely artificial, being a shallow lagoon behind a sandbar, which the Government has dredged deep enough to admit ocean-going vessels.

* It is navigable waters extend to seventeen states.

Written Work.

1. Tell how our rivers help our commerce.
2. Name three heads of navigation in the Mississippi Valley.
3. Name two in the Great Lake system.
4. What is a harbor?
5. Where are the good harbors of the United States?
6. Why are the harbors of the Southern States comparatively poor?

3. *The northern half of North America was long ago covered by a great ice sheet; and most of the lakes are a product of this glacial period.*

TEACHER'S READINGS:

Davis, 330-46.
 Dryer, 108-22, 122-48.
 Gilbert & Brigham, 10, 119-32, 132-50.
 Brigham, 41-5, 115-24, 151-2.
 Redway's Advanced geography, 19-20.
 Frye's Advanced geography, 10, 88.
 Tarr & McMurry, Second Book, 12-18.
 Tarr & McMurry, New England Supplement, 7-12.
 Tarr & McMurry, Pennsylvania Supplement, 13-19.
 Tarr & McMurry, Ohio Supplement, 2-7.
 Tarr & McMurry, Utah Supplement, 16-19.
 Tarr & McMurry, California Supplement, 49-50.
 Herbertson, North America, xiv, 29.
 Shaler, Aspects, 179-81.
 Shaler, First Book geology, 125-9.
 Shaler, Story of our continent, 65-75, 79-80, 84.
 Dodge, 121-32, 132-6.

The map on page 48 of Redway's Advanced Geography shows the limits of the glacial drift. Other maps of the glacial area are given in Tarr & McMurry, second book, p. 14; Dryer, 125; Davis, 332; Gilbert & Brigham, 145. Note that nearly all of the lakes of our continent are within this glaciated area.

Give the class an idea of the immensity of this ancient ice sheet. It is estimated to have been over 5,000 feet thick (nearly a mile!). Tell how the slow-moving glaciers ground out new valleys and filled old ones. It utterly changed the face of the land over which it advanced and receded. Now, owing to a change of climate, the ice sheet has retreated northward until the great ice cap of Greenland is its only remnant.

Tell about the moraines deposited by the retreating glaciers, and how these moraines form lake basins.

Written Work.

1. Tell what you have learned of the great ice sheet.
2. Describe the movement of a glacier.
3. What are moraines?
4. How did the glacier make our lakes?
5. Where may glaciers be found to-day?

Text-book Review.

* The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 10-11, 10-20, 21, 45-6, 40-53, 88.
 Frye's Advanced geography, 8, 17-18, 64-71, 12-13, 50, 88.
 Tarr & McMurry, Introductory geography, 17-27, 28-38, 39-52, 62-7, 130.
 Tarr & McMurry, Second Book, 5-10, 19-21, 124-6, 12-18.

CLIMATE: HEAT.

Lesson Units.

1. North America lies in three zones. It has a torrid south, an arctic north, and a temperate middle region. 2. East of the Rocky Mountains the temperature is governed by cyclones. 3. The Pacific Coast has very mild temperatures, because of the prevailing sea-winds.

1. North America lies in three zones. It has a torrid south, an arctic north, and a temperate middle region.

TEACHER'S READING:

Redway's Advanced geography, 24-5.
 Frye's Advanced geography, 27-9.
 Tarr & McMurry, Introductory geography, 120-3.
 Tarr & McMurry, Second Book, 37.
 Adams' Commercial geography, 4-9.
 Davis, 52-4.
 Gilbert & Brigham, 25-6, 246-4.
 Channing (Students' history United States), 3-7.
 Dodge, 180-4.

Begin with a review lesson on zones, using the text-book hemispherical map, and if procurable, a globe also. Review the names of the zones and the circles bounding them.

Elicit that climate is warmest about the equator and colder toward the poles. Have pupils describe each zone as to its climate.

Turn to the text-book map of North America and have the class determine what zones traverse this continent, and in which zone the greatest portion lies. Have individual pupils indicate, on the blackboard map, the area traversed by each zone.

Elicit that the climate of North America is very warm in the south, very cold in the north, and temperate in the middle regions. Using the political map, let pupils say what countries lie in each of these climatic regions. Let pupils determine, approximately, their own latitude, from the map.

Written Work.

1. Name the zones of the earth, and describe the climate of each.
2. Tell what zones traverse North America, and in which zone most of this continent lies.
3. Tell which countries in North America are warm, which are cold, and which are temperate.
4. Tell the latitude of your own home.

2. East of the Rockies the temperature is governed by cyclones.

TEACHER'S READING:

Redway's Advanced geography, 26, 54.
 Frye's Advanced geography, 74.
 Tarr & McMurry, 52-6.
 Adams' Commercial geography, 49-51.
 Davis, 31-4, 48-52.
 Dyer, 312-26, 335-17.
 Gilbert & Brigham, 258-9, 270-2.
 Shaler, Aspects, 226-56.

For this lesson draw Fig. 8 on the board. Tell the class a little about cyclones: Not necessarily violent storms, as generally thought; great whirls of air, sometimes a thousand miles across; always whirl in the same direction (in our hemisphere, a direction opposite to that taken by the hands of the clock).



Fig. 8. A cyclonic storm in the East.

(The real cyclone is not circular in area, as here shown, but elliptical and irregular. This circular representation is true in principle, however, and is more easily comprehended by the pupil.)

We feel the cyclone in motion and call it wind. Since it is a great *whirl* of air its different quarters will be blowing in different directions. Note (in the diagram) that a town in one part of the cyclone may be having a northwest wind while another in an opposite quarter will have a southeast wind; *but both of these winds will be part of the same cyclone*. The motion is most violent near the center of the cyclone, and soft and zephyr-like toward the outer limits. At the center there is no wind at all.

In the diagram, what kind of a wind is blowing in Chicago? (A northeast wind.) In New York? (A southeast wind.) In Norfolk? (A southwest wind.) In Chattanooga? (A northwest wind.)

Elicit that the wind will acquire the temperatures of the country through which it passes. Therefore (in the diagram) Chattanooga is receiving a cold wind because it is from the northwest. At the same moment New York is receiving a warm wind: it is from the southeast, from the warm ocean and the Gulf Stream.

Go one step further now, and describe how the cyclone, instead of remaining in the same region, *moves forward* as it rotates. Thus the same city will, on different days, find itself in different quarters of the storm, and the winds will veer accordingly. The same cyclone which gives New York a southeast wind, with warm, rainy weather, on a Tuesday, may by Thursday give it a northwest wind and cool and clear weather.

The cyclone always moves across the country in a general easterly direction. Sometimes it varies, and moves southeast or northeast, but it cannot move west. This is because it is traveling in the great easterly progress of the return trades, which blow across the United States forever from west to east. Read about the return trades, or "westerlies": Redway Adv., p. 26; Davis, 31-2; Tarr & McM., Sec. Bk., 50-1; Gilbert & Brigham, 58.

The "cold waves" and "warm waves" announced by the Weather Bureau are different portions of the cyclone as it moves over the country.

Written Work.

1. Tell about "prevailing westerlies."
2. Tell about the two motions of a cyclone.
3. Can you tell why the eastern half of a cyclone is warm and the western half cold?

3. *The Pacific Coast has very mild temperatures because of the prevailing sea-winds.*

TEACHER'S READING:

Redway's Advanced geography, 24-6, 46.
 Frye's Advanced geography, 74.
 Tarr & McMurry, Second Book, 42-51.
 Tarr & McMurry, California Supplement, 15-18.
 California state introductory geography, 262-3.
 Adams, 7-9.
 Davis, 36-7.
 Dryer, 306-7, 332-47.
 Gilbert & Brigham, 244-5.
 Dodge, 185-8.
 Scribners', Vol. 31 (1902), 689 et seq. ("The Gulf Stream myth").

The prevailing wind on our Pacific Coast is from the west (the "prevailing westerlies" or anti-trades). It comes forever from the Pacific Ocean and passes east, or slightly northeast, over the United States and southern Canada. It brings with it the temperatures of the ocean, which are warmer in winter and cooler in summer than those of the land. The water of the ocean heats more slowly and cools more slowly than the soil and rock of which the land is made. For example, if a fire be made in the stove and a kettle of water placed upon it, the stove will become quite hot before the water becomes even tepid. Later on, after the water has boiled and the fire died out, the stove will grow stone-cold while the water is yet warm. In the same way, the ocean, keeping a more uniform temperature throughout the year, becomes a source of warmth in winter and of coolness in summer for those fortunate lands, such as Norway and our own Pacific shores, as far north as southern Alaska.

Elicit that, in San Francisco, the coldest weather is measured by only the lightest kind of frost, with no ice or snow; while the same latitude east of the mountains has skating and sleighing in winter.

Written Work.

1. Describe the experiment with the kettle and the stove.
2. Explain the mild climate of the Pacific Coast.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 24-6, 46, 54.

Frye's Advanced geography, 27-9, 74.

Tarr & McMurry, Second Book, 37, 42-56.

Tarr & McMurry, Introductory geography, 120-3.

CLIMATE: MOISTURE.

Lesson Units.

1. East of the Rocky Mountains North America is watered by cyclonic storms. 2. The Pacific Coast is wet in the north and dry in the south. 3. The great plateau is arid because of the mountains on the west and because of the belt of calms in the south.

1. *East of the Rocky Mountains North America is watered by cyclonic storms.*

TEACHER'S READING:

Redway's Advanced geography, 24-7, 46, 54.

Frye's Advanced geography, 74-5.

Tarr & McMurry, Second Book, 53-6.

Dryer, 306-11, 312-26, 327-34, 335-47.

Davis, 29-34, 48-52.

Gilbert & Brigham, 258-9, 270-2.

Shaler, Aspects, 226-56.

Shaler, First book in geology, 56-61.

Channing (Students' history United States), 7-11.

Dodge, 188-91.

Review the subject of rain-making (South America, p. 48).

Review Unit 2, in the topic just preceding. Use the diagram again (Fig. 8). Elicit again that the same city, New York, may, within the space of a week, have winds from each quarter in succession, as the same cyclone drifts across the region.

Elicit now that the southeast wind (in New York), coming in from over the ocean, will be (a) moist and (b) warm. Coming north into the cooler latitudes it will become chilled, and its moisture will be precipitated as rain or snow, according to the season.

In Southern States, similarly, the southeast quarter of the cyclone will pass over either the Atlantic or the Gulf, with a like result.

Elicit that it is the southeast quarter of the cyclone that *gathers* the moisture, and the northeast quarter that *sheds* it. Work this out from the diagram.

Elicit now that, for reverse reasons, the west half of the cyclone brings dry, clear weather. The wind is blowing southward and getting warmer instead of cooler. Such moisture as it gathers is not condensed, therefore, but remains invisible.

Elicit, as a summary, that each cyclone, as it drifts over the country from west to east, delivers to every part of its route a succession of weathers. The summer cyclone brings cloudy and rainy days followed by clear days. The winter cyclone brings the blizzard, with snow and leaden skies; and following come cold, crisp days with clear skies.

Written Work.

1. Which side of the cyclone brings clouds and rain? Which side brings the clear weather?
2. Can you explain why?

2. *The Pacific Coast is wet in the north and dry in the south.*

TEACHER'S READING:

Redway's Advanced geography, 24-7, 54.
 Frye's Advanced geography, 74.
 Tarr & McMurry, Second Book, 51-2, 286.
 Tarr & McMurry, California Supplement, 15-18, 53-4, 77-9.
 California state introductory geography, 262-3.
 Dryer, 306-7, 327-34, 340-1.
 Davis, 29-33.
 Herbertson, North America, 196-200, 189-91, 163.
 Shaler, Story of our continent, 182-3.
 Channing (Students' history United States), 7-11.
 Dodge, 188-91.

Refer back to Unit 3, of the preceding topic, and review the fact of a prevailing sea-wind on the Pacific Coast (in our latitudes).

This return trade-wind brings rain to the northern Pacific region (northern California, and thence northward as far as southern Alaska) for two reasons:

(a) The coast mountains in those regions are sufficiently high to lift the in-drifting air enough to cause rain. In teaching this point review the subject of mountains and rain, p. 49.



Fig. 9. A cyclonic storm on the Pacific Coast.

(The real cyclone is not circular in area, as here shown, but elliptical and irregular. This circular representation is true in principle, however, and is more easily comprehended by the pupil.)

(b) In those latitudes, also, cyclones are in operation* similar to those which distribute weather beyond the Rockies.

* The cyclone picks up a vast whirl of air in the return trade-wind, and travels with it.

In illustration draw Fig. 9. Elicit that the southwesterly wind in this cyclone brings in the moisture; and that by the time it becomes a southeast wind it is (*a*) in a more northerly latitude, and (*b*) moving up the slope of the mountains, and therefore exhibiting its moisture as cloud and rain.

Central and southern California have a dry summer because neither of these conditions is present. The cyclone whirl does not reach so far south (in summer) and the coast mountains are not high enough to chill the sea-winds to the point of precipitation. The higher mountains, in the interior, *have* summer rains.

For the extreme south of California there is a third reason for the absence of rain. During the summer season, when all the wind belts of the earth shift somewhat to the northward (moving with the sun) the tropical belt of calms enters southern California. This belt of calms is a region of down-coming dry air which yields no rain. A belt of deserts all around the earth roughly marks its latitude. There is a similar belt of calms and deserts in the southern hemisphere.

In winter the return trades, including within their width the cyclone track, shift somewhat to the south. This brings all of California within the action of the cyclone, and rains result. But even then the rains in the extreme south are very scant.

Written Work.

1. Tell about the prevailing wind on our Pacific Coast.
2. Why has southern California a dry summer?
3. What brings the winter rains?

3. *The great plateau is arid because of the mountains on the west, and because of the belt of calms, in the south.*

TEACHER'S READING:

Redway's Advanced geography, 26, 46.
 Tarr & McMurry, Second Book, 52, 286-8.
 Tarr & McMurry, Utah Supplement, 65-7.
 Adams' Commercial geography, 15.
 Tarr & McMurry, California Supplement, 17-18, 92-6.
 Dodge, 190-2.

Review the facts that the return trades blow forever from the Pacific, over the United States and southern Canada. They are rain-bearing winds, but the high Sierras and Cascades lift them to cold altitudes and wring from them the first installment of their moisture. After crossing these high mountains they encounter no elevations on the plateau to lift them higher, into colder realms. They reach no other rainmaking agent until the high peaks of the Wahsatch and Rockies are reached. The great plateau is therefore a succession of deserts.

Along our southern borderland (the extreme south of California, southern Arizona, southern New Mexico, and northern Texas) there is a continuation of these deserts, but they result from another cause. That band of country lies in the belt of tropical calms, a region of down-coming dry air that gives no rain.

Still farther south the great plateau valley of Mexico is arid for the same reason that affects the Nevada plateau. The rain-bearing winds are intercepted by a high wall of mountains. Here, however, the prevailing winds come from the Atlantic side (the trades), and it is the eastern instead of the western mountains that are chiefly responsible for the aridity of high Mexico.

Written Work.

1. Explain how mountains are rainmakers.
2. Which side of any range of mountains gets the rain?
3. Explain the dryness of the Rocky Mountain plateau.
4. Explain why the region near the Mexican border is dry.
5. Explain the aridity of the Mexican plateau.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's *Advanced geography*, 24-7, 46, 54.
 Frye's *Advanced geography*, 74-5.
 Terr & McMurry, *Second Book*, 51-6, 286-8.

FORMAL GEOGRAPHY OF NORTH AMERICA.

Use the blackboard map (Fig. 1), in conjunction with the political map in the text-book. By various drills fix the following locations, together with the oral and written spelling concerned. (For some useful locative drills see p. 50.)

Atlantic, Pacific, Arctic oceans.

Hudson Bay, Bering Sea, Gulf of Mexico, Caribbean Sea.

Bering Straits, Isthmus of Panama.

Greenland, West Indies, Newfoundland.

Rocky Mountains, Appalachian Mountains.

Mississippi, St. Lawrence, Colorado, Columbia, Yukon, Rio Grande rivers;
 Great Lakes.

United States, Canada, Alaska, Mexico, Central America.

Washington, Ottawa, Sitka, Mexico (city).

Boston, New York, Chicago, San Francisco, New Orleans.

Equator, Tropic of Cancer, Arctic Circle.

Torrid Zone, North Temperate Zone, North Frigid Zone.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units. THE PEOPLES OF NORTH AMERICA.

1. When the white men came they found many tribes of Indians; and in the far north, the Eskimos. 2. South of the United States the people are of Spanish blood; north of the United States they are of English, with some

French. The people of the United States are a mixture of all the races of the earth, but they speak the English language.

1. *When the white men came they found many tribes of Indians; and in the far north, the Eskimos.*

Assign enough pupils' reading to be able to elicit a general survey of the aboriginal peoples of the continent. Make it clear that the entire continent was thinly peopled by many and various tribes of red men, from the pure savages of the forest and plains to the partly civilized Aztecs and Pueblos. Teach that all of these peoples, while of various tribes, are considered, in a large way, as one people—the Indians; but that the Eskimos, of the Arctic regions, are an entirely different race.

PUPILS' READINGS:

McMaster, 22-3 (the Pueblo Indians), 16-20 (the eastern Indians).
 Carpenter, 295-7 (the Pueblo Indians), 302-6 (Indians of Alaska).
 Carroll, Third Book, 119-21 (Cliff Dwellers).
 Our country west, 167-73 (Cave Dwellers), 12-15 (canoe builders).
 Miln, 87-111 (Indian customs).
 Kirby, Fireside, 51-69 (Indian stories).
 Dodge, 215-16 (Cliff Dwellers), 216-17 (pueblo builders).
 Pratt, Stories of Massachusetts, 13-16 (Indians whom the Pilgrims found).
 Pratt, Cortez and Montezuma, 3-11 (the Aztecs).
 Pratt, America's story, 51-6 (Montezuma).
 Carroll, Second Book, 9-16 (Indians of Alaska).
 King, Fifth Book, 94-101 (Alaska Indians).
 Johnnot, Stories, 20-28 (the Aztecs).
 Charles McMurtry, 187-9, 199-204 (the Aztecs).
 Winterburn, 46-54 (Montezuma and the Aztecs).
 Seabury, 199-206 (aboriginals of Porto Rico).
 (For Eskimo descriptions see readings under Arctic America, Unit 1, p. 84).

TEACHER'S ADDITIONAL READINGS.

Lummis, Strange corners, 58-65 (the Navajos), 75-89 (Indian magicians and medicine men), 198-207 (Navajo blanket-makers), 208-18 (Indian hunters), 219-27 (the Indian idea of education), 228-61 (strange customs of the desert Indians).
 Eggleston, Montezuma, 11-33 (Montezuma and the Aztecs).
 Herbertson, 191-3 (Navajos), 23-4 (Alaska Indians).
 Ballou, Footprints (Eskimos).
 Shaler, Story of our continent, 153-65 (a good general survey of the aborigines).

Written Work.

1. Tell about the Aztecs.
2. Tell about the Indians whom the Pilgrims found.
3. Tell something about the western Indians.
4. Tell something about the Eskimos.

2. *South of the United States the people are of Spanish blood; north of the United States they are of English, with some French. The people of the United States are a mixture of all the races of the earth, but they speak the English language.*

This topic may here be treated in a brief and general way, since its content will be covered more in detail in the later topics. The lessons should leave a clear conception in the pupil's mind of a region south of us which is characteristically Spanish, a region on the north which is just as characteristically English; and finally our own people, a motley of races, but bound together by certain distinctive ideals and making common use of the English tongue.

PUPILS' READINGS:

- King, Second Book, 263-9 (people of Mexico), 189-92 (the Canadian provinces), 198-206 (Canadian cities).
 The wide world, 108-13 (boys of Mexico).
 Starr, 17-23 (people of Mexico).
 By land and sea, 102-7, 110-12 (people of Mexico).
 Miln, 222-36 (Canadian outdoor life).
 Children of the world, 202-6 (outdoor sports of Canada).
 George, 9-93 (cities of Canada).
 Tarr & McMurry, Second Book, 381-92 (the Spanish republics), 331-6 (Canada, in general), 366-71 (cities of Canada).
 King, Third Book, 154-69 (New York City), 195-214 (Philadelphia).
 Dodge, 23-6 (Greater New York), 30-2 (centers of life), 33-6 (commercial centers), 36-40 (agricultural centers).
 Our country east, 200-4 (Provincetown).
 Carpenter, 91-9 (historic Boston).
 Carroll, Third Book, 203-11 (historic Boston).
 Smith, 40-7 (in Boston), 96-101, 155-63 (people of Mississippi Valley).
 King, Fourth Book, 87-106 (historic Boston, etc.).
 Our country west, 193-9 (the people of New Mexico), 203-7 (life in Dakota).

TEACHER'S ADDITIONAL REFERENCE:

- Herbertson, 30-2 (Newfoundland fishermen), 55-7 (Canadian farmers), 57-9 (the French Canadians), 134-6 (Missouri towns and farms), 117-23 (American cities).
 Chisholm, 370-9 (cities and people of Canada).
 Adams, 36-8 (backward conditions in Spanish south).
 Redway's Advanced geography, 34 (density of population), 41-3 (features of large cities).
 Brigham, 66-9 (the literary side of New England).

Written Work.

1. Describe the people in the portion of North America south of the United States.
2. Describe the people of the region north of the United States.
3. Show, in a general way, how the people of the United States differ from those of other nations.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

- Redway Advanced geography, 47-9, 57.
 Frye's Advanced geography, 61-4, 130-33 (the pertaining material).
 Tarr & McMurry, Second Book, 97-107.
 Tarr & McMurry, Introductory geography, 140.

DESCRIPTIVE NORTH AMERICA.

THE SPANISH SOUTH.

Mexico and Central America are here grouped as one characteristic area. Read "Note on Method," p. 53.

Formal Geography of the Region.

Use the blackboard map of North America (or preferably draw a separate mass map of the region), in conjunction with the political map in the text-book. Teach, by various interesting drills,* the following locations, together with the oral and written spelling concerned.

Mexico, Guatemala, Honduras, Nicaragua, Salvador, Costa Rica.

United States, Panama.

Pacific Ocean, Gulf of Mexico, Caribbean Sea, West Indies, Rio Grande River.

* See note on drills, p. 70.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. Here lived Montezuma and the Aztecs. 2. Here came the gold-seeking Cortez, and overthrew the Aztecs for all time. 3. This region is a high plateau, flanked by torrid plains. It has three distinct climates, and is a land of volcanoes and earthquakes. 4. The people are dark-skinned, courteous, and easy-going: they eat tortillas and red pepper, and live in adobe houses. 5. This region produces many useful things, but is best known for its silver, coffee, and bananas.

1. *Here lived Montezuma and the Aztecs.*

Do not spend any time here on the Toltecs, or pre-Aztec races. Aim merely to implant a clear notion of the Aztecs themselves, as an aboriginal race, occupying the region when the Spaniards came.

PUPILS' READINGS:

Pratt, Cortez and Montezuma, 3-11 (the Aztecs).
Charles McMurry, 187-9, 199-201 (the Aztecs).
Pratt, America's story, 51-6 (Montezuma).
Winterburn, 46-54 (Montezuma and the Aztecs).
Johannot, Stories of other lands, 20-28 (Montezuma and the Aztecs).

TEACHER'S ADDITIONAL REFERENCE:

Eggleston, Montezuma, 11-33 (Montezuma and the Aztecs).

Written Work.

1. Describe the country in which the Aztecs lived.
2. To what extent were the Aztecs civilized? Tell why you think so.
3. Tell what you have learned about Montezuma.

2. *Here came the gold-seeking Cortez, and overthrew the Aztecs for all time.*

One lesson will be sufficient. Keep in mind that it is, after all, geography and not history that we are teaching. Bring out the tragic aspect of the episode in which the Aztec regime perished from the earth and yielded forever to a European ideal.

PUPILS' READINGS:

Pratt, Cortez and Montezuma, 13-95 (the conquest by Cortez).
Chas. McMurry, 187-216 (the conquest by Cortez).
Pratt, America's story, 56-7 (the coming of Cortez).
Winterburn, 43-56 (Cortez and Montezuma).
Hall, 212-15 (the coming of Cortez).
Johannot, Stories of other lands, 20-28 (Cortez and Montezuma).

TEACHER'S ADDITIONAL REFERENCE:

Eggleston, 40-385 (the detailed story: fascinating, but not easily broken up into separate readings).

Written Work.

1. Tell about the coming of Cortez.
2. Tell how he gained control of the Aztecs.
3. Tell about the death of Montezuma.

3. *This region is a high plateau, flanked by torrid plains. It has three distinct climates, and is a land of volcanoes and earthquakes.*

Teach about the low coast lands, with their fevered climate, impossible for the white man; the interior plateau, so high as to have a cool and bracing atmosphere; and the transitional climate, halfway up the slopes, where it is always spring. "Nine tenths of the people live on the plateau." Associate the notion of volcanoes and earthquakes with this region, and locate Popocatepetl.

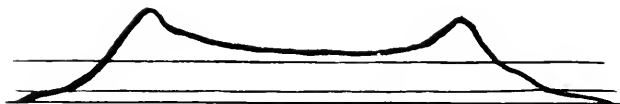


Fig.10. Profile of Mexico (for teaching the three vertical climates).

Draw a profile of Mexico on the blackboard (Fig. 10), and, in the course of the lesson, have the pupils point out, upon it, the *tierra caliente*, *tierra templada*, and *tierra fria*.

PUPILS' READINGS:

- Carpenter, 331-4 (the three climates).
- Tarr & McMurry, Second Book, 378-80 (the three climates), 384-6 (the dry plateau).
- King, Second Book, 257-62 (the three zones).
- Johonnot, Reader, 49-52 (earthquakes).
- Rupert, 115-21 (climbing the plateau), 121-7 (climbing Popocatepetl).
- Dodge, 154-7 (volcanoes and lava), 158-63 (earthquakes).
- Herbertson, Central and South America, 35-7 (the plateau in Guatemala).
- Herbertson, North America, 203-8 (mountains of Mexico), 208-9 (the Sierra Madre), 210-11 (volcanoes), 211-14 (the three zones), 219-21 (climbing the plateau).
- Shaler, Story of our continent, 259 (Central American earthquakes).

TEACHER'S ADDITIONAL REFERENCE:

- Ballou, Aztec land.
- Ballou, Footprints.
- Stoddard, Lecture, Mexico.
- Vincent, In and out of Central America.
- Shaler, Aspects, 13-45 (earthquakes in general).
- Chisholm, 398-400.

Written Work.

1. Tell about the highlands and lowlands of this region.
2. Tell about the three climates.
3. Tell about the volcanoes and earthquakes.

4. *The people are dark-skinned, courteous, and easy-going; they eat tortillas and red pepper, and live in adobe houses.*

Dwell upon the indolent, procrastinating life, the spirit of *mañana*: "We'll do it to-morrow." Associate it with the sultry, indulgent climate which prevails throughout the lowlands. Note the suave courtesy of these people, but note also that it is in some measure empty and formal. Bring out their picturesqueness in dress and social customs, so unlike our own.

PUPILS' READINGS:

- Starr, 17-23 (people of Mexico).
- Coe, 197-215 (customs and houses).
- King, Second Book, 253-6 (city of Vera Cruz), 277-85 (city of Mexico), 269-76 (Mexican farmers), 263-9 (people of Mexico).
- The wide world, 108-13 (boys of Mexico).
- Tarr & McMurry, Second Book, 381-2 (food and homes), 387-9 (cities and people), 389-92 (the little republics).
- Schwatka, 244, 41-6, 100-1, 146-9, 157-69 (dress, food, customs, etc.).
- By land and sea, 102-7, 119-12 (people and customs, Mexico).
- Rupert, 211-17 (the effect of the railroad), 119-20 (odd customs), 131-3 (Guatemala).
- Strange lands near home, 16-12 (odd Mexican customs).

Herbertson, Central and South America, 38-40, 49-52 (people and scenery, Central America).
 Herbertson, North America, 217-19 (poverty of the peons), 221-2 (city of Mexico).
 George, 9-30, 92-8 (people and cities of Mexico), 33-48, 74-9 (scenes in Mexico City), 48-59 (the poor peons in their homes), 60-2 (tortillas), 62-0 (Mexican children), 69-74 (amusements), 79-82 (a hacienda), 83-106 (traveling in Mexico).
 Miln, 348-67 (children of Mexico).
 Carroll, Second Book, 47-76 (Mexican customs).
 Carpenter, 327-30 (dress, customs, houses), 334 (farmers), 336-45 (odd customs), 345-52 (scenes in Central America).
 Our country west, 183-9 (the people of New Mexico), 189-92 (adobe houses), 249-51 (cactus).

TEACHER'S ADDITIONAL REFERENCE:

Vincent, In and out of Central America.
 Stoddard, Lecture, Mexico.
 Ballou, Aztec land.
 Ballou, Footprints.
 Smith, A white umbrella in Mexico.
 Blake & Sullivan, Mexico.
 Adams' Commercial geography.

Written Work.

1. Tell about the dress and houses of the people.
2. Tell about their industry and their manners.
3. Describe the queer foods.
4. Tell about the peons.

5. *This region produces many useful things, but is best known for its silver, coffee, and bananas.*

Mexico should be associated in the pupil's mind with vast deposits of silver, crudely worked. The coffee needs less emphasis, since we shall want to identify it more particularly with Brazil. The maguey should receive special notice as a unique and characteristic Mexican plant.

PUPILS' READINGS:

Silver—
 Tarr & McMurry, Second Book, 386.
 Schwatka, 75-6.
 Herbertson, North America, 216-17.
 Carpenter, 343.
 Mahogany—
 Kirby, Fireside, 79-80.
 Herbertson, Central and South America, 42-5.
 Coffee—
 Rupert, 128-30.
 Tarr & McMurry, Second Book, 384-5.
 Allen, 79-97.
 Chamberlain, Fed, 104-12.
 Carpenter, 332-4.
 Beal, 256-61.
 George, 58-60.
 Bananas—
 Chamberlain, Fed, 146-54.
 Allen, 23-42.
 Maguey—
 Tarr & McMurry, Second Book, 382-3.
 George, 30-33.
 Carroll, Second Book, 73-4.
 Carpenter, 335-6.
 King, Second Book, 271-2.
 Coe, 181-5.
 An especially good account of the maguey is given in Farmer: A story-book of science, pp. 115-21. Lothrop & Co.
 Cocoa—Kirby, Fireside, 88-92.

TEACHER'S ADDITIONAL REFERENCE:

Ballou, Aztec land.
 Stoddard, Lecture, Mexico.
 Vincent, In and out of Central America.

Written Work.

1. Name three or four of the most important products of this region.
2. Tell about Mexican silver, and the methods of mining it.

3. Tell where the bananas come from and how they grow.
4. Describe the maguey plant and its uses.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 97-9.
 Frye's Advanced geography, 132-4.
 Tarr & McMurry, Second Book, 378-91.
 Tarr & McMurry, Introductory geography, 195-8.

ARCTIC AMERICA.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Use a blackboard map of the region, in conjunction with the political map in the text-book. By various interesting drills * teach the following locations, together with the oral and written spelling concerned.

North Pole, Arctic Circle.

Arctic Ocean, Hudson Bay, Bering Strait, Bering Sea.

Greenland, Labrador, Alaska.

Yukon and Mackenzie rivers.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. This is the land of the fur-clad Eskimo. 2. It is the land of the long day and night, of the aurora and the midnight sun. 3. Here are treeless, snowbound wastes, and icebergs in the sea. 4. Here live the seal, the walrus, and the polar bear. 5. Here men sought the northwest passage and the pole.

1. *This is the land of the fur-clad Eskimo.*

Work out an intimate picture of a simple-minded, peaceable race, few in numbers, very lonesome, ignorant and unwashed. Dwell on the lack of supplies at hand, either for construction purposes or for variety in food.

PUPILS' READINGS:

Chamberlain, Clothed, 12-29 (Eskimo customs).
 Schwatka, 11-43, 142-7, 292-5 (the Eskimo, and how his igloo is made), 44-95 (Eskimo play-things), 111-15 (Eskimo candy), 66-79, 93-100, 116-31 (coasting and other games), 132-41 (Eskimo tools), 151-3, 194-9 (reindeer hunt), 154-9 (seal hunt), 160-70 (fishing), 41-9, 89-92, 147-51 (the Eskimo dogs), 171-4 (Eskimo clothes), 175-201 (daily life of the Eskimo), 199-200 (catching ducks), 182-8 (adrift on the ice).
 Shaw, 62-9 (Greenland Eskimos).
 Minn, 41-53 (the Eskimos).
 Starr, 6-12 (the Eskimos).
 Carpenter, North America, 301-2 (Eskimos).
 Robertson, 28-9 (hospitable Eskimos).
 Lohmann, Reader, 101-5 (an igloo).
 The wide world, 114-22 (Eskimo life).
 King, First Book, 177-85 (Eskimos).
 Tarr & McMurry, Second Book, 372-5 (Eskimos).
 Kellogg, 104-11 (Greenland Eskimos).
 Stockton, 41-64 (Eskimo life).
 Carpenter, Australia and islands, 375-80 (Greenland Eskimos).
 Andrews, Seven little sisters, 9-22 (Agoonack).

* See note on drill, p. 76.

Andrews, Each and all, 9-25 (Agoonack).
 Our country west, 26-30 (the Alaskan Eskimos), 57-64 (their ways of hunting).
 Scandlin, 13-15, 30-3, 60-7, 85-8, 110-25 (Eskimo stories).
 Muller (whole book, for third and fourth grades).
 Kirby, Fireside, 18-20 (dog sledge), 27-9 (Greenlanders), 22-4 (snow house).
 Horton, 40-44 (Eskimo ways), 113-16 (meeting the Eskimos), 37-9 (sledding on the ice).
 Wade, 9-17 (an Eskimo baby), 18-27 (Eskimo clothes), 28-37 (games), 38-48 (Eskimo dogs), 49-62 (kyack and harpoon), 63-73, 81-90 (hunting seals), 74-9 (Eskimo feast), 81-90, 91-3 (Eskimo Christmas), 97-9 (building the igloo), 100-3 (when summer comes), 107-10 (moving time).
 Mary Smith (the whole book, for primary children).

TEACHER'S ADDITIONAL REFERENCE:

Oxley, 173-90 (an intimate description of the Eskimos).
 Ballou, Footprints.

Written Work.

1. Describe the Eskimo's dress and his appearance.
2. Describe his house.
3. Tell about his food and his daily life.
4. Tell about his hunting and his way of traveling.

2. *It is the land of the long day and night, of the aurora and the mid-night sun.*

This subject should here be presented in its spectacular, or wonder aspect, alone. The complicated explanation, based on the inclination of the earth's axis and the annual revolution, is best left for a special course in an advanced grade.

PUPILS' READINGS:

Wade, 57-8 (the aurora).
 Stockton, 247-9 (the aurora).
 Andrews, Each and all, 12-13, 19 (the aurora, etc.).
 Johnsonnot, Reader, 105-7 (the aurora).
 Frost, 115-16, 121 (the aurora).
 Children of the world, 236-7 (the aurora, etc.).
 Kirby, Fireside, 14-18 (zones, aurora, etc.).
 Schwatka, 9-11 (the Arctic land).
 Scandlin, 60-1 (departure of the sun), 124-5 (return of the sun), 36-7 (the long, desolate night).
 Horton, 3-6 (long day and night).
 Herbertson, Europe, 17 (the midnight sun).
 Pratt, Northern Europe, 65-71, 85-6 (midnight sun, aurora, etc.).
 Carpenter, Europe, 163-4, 173-5 (midnight sun).
 Coe, Modern Europe, 109-10 (the midnight sun).
 Mary Smith (the whole book, for primary grades).
 DuChailu, Land of long night, 73-6 (good-by to the sun), 76 (aurora), 109-12 (return of the sun).

TEACHER'S ADDITIONAL REFERENCE:

DuChailu, land of long night, 36-9 (the long night and its cause).
 Redway's Advanced geography, 23 (long day and night explained).
 DuChailu, land of midnight sun, Vol. I, 2, 61, 63-4; Vol. II, 1-2, 38, 46-7.
 Ballou, Footprints.

Written Work.

1. Describe the long Arctic night, and the long day. Tell about the mid-night sun.
2. Describe the aurora, and tell about its usefulness to the people of the far north.
3. *Here are treeless, snowbound wastes, and icebergs in the sea.*

Build up a vivid picture of the vast solitude of snow and ice, where the green of vegetation is rarely seen; a white earth and a gray sky, with nothing vertical in the landscape except the icebergs; a picture utterly dreary and forlorn to all save the Eskimo.

PUPILS' READINGS:

- Mary Smith (whole book, for primary grades).
 Johnnot Reader, 107-12 (snowland).
 Rupert, 100-2 (the intense cold).
 Frost, 120-22 (snow and ice).
 By land and sea, 195-9 (about icebergs).
 Kellogg, 95-159 (the Arctic snows).
 Tarr & McMurry, Second Book, 375-6 (Arctic landscape), 13 (the Greenland glaciers).
 King, Second Book, 6-12 (the frozen north).
 Johnnot, Stories of other lands, 220-32 (story of Dr. Kane).
 Kirby, Fireside, 34-8 (fast in the ice).
 Horton, 110-13 (adrift in the ice).
 Scandlin, 59, 62 (the white, silent plain), 22 (icebergs and floe ice).
 Schwatka, 202-12 (the Arctic cold), 182-8 (adrift on the floe ice), 19-20, 67, 182-8, 208-12 (the Arctic snow land).
 Stockton, 250-5 (Eskimo seal-catching), 258-62 (adventure with a polar bear).
 Carpenter, 299-300 (glaciers and icebergs).
 Horton, 11-13 (icebergs), 27-9 (fast in the ice), 34-5 (icebergs), 72-7 (adrift in the pack ice), 80-6 (bleak Grinnell land), 110-13 (adrift on the ice), 117-20 (sledging over the ice), 128-38 (winter in the Arctic), 110-3 (when summer comes).
 Dodge, 121-32 (glaciers and icebergs).
 Shaler, Our continent, 79-80, 126-7 (the Greenland ice-cap, and icebergs).
 Herbertson, 18-19 (the tundra), 29 (the Greenland ice-cap).

TEACHER'S ADDITIONAL REFERENCE:

- Ballou, Footprints, 375-81.
 Redway, New basis, 69.
 Redway's Advanced geography, 28 (tundras explained).
 Tarr & McMurry, Utah Supplement, 16-19 (glaciers described).
 Dryer, 108-21 (glaciers and ice-caps), 270-1 (life of an iceberg).
 Davis, 65-7 (ice in the ocean), 324-30 (glaciers and ice-caps).
 Gilbert & Brigham, 128-32 (the Greenland ice-cap, and icebergs), 119-28 (glaciers in general).

Written Work.

1. Write a little account of the Arctic landscape.
2. Describe the birth of an iceberg.
3. What is the difference between icebergs and floe ice?
4. Describe a glacier.

4. *Here live the seal, the walrus, and the polar bear.*

Besides the mere wonder aspect of the polar beasts, bring out the absolute dependence of the Eskimo upon them; upon the dogs for transportation, and the wild animals for food and clothing.

PUPILS' READINGS:

- Chamberlain, Clothed, 147-53 (the Pribiloff seals).
 Carpenter, 303-6 (seals of Alaska).
 Stockton, 250-5 (Eskimo seal-catching), 258-62 (adventure with a polar bear).
 Our country west, 57-64 (the sea otter), 31-5 (reindeer in Alaska), 49-52 (the Pribiloff seals), 53-6 (sea-lion hunt).
 Schwatka, 90-1 (wolves), 100-110 (musk ox and polar bear), 151-3, 164-9 (reindeer hunt), 154-9 (seal hunt), 160-70 (Eskimo fishing), 199-200 (catching ducks), 34-9, 81-90, 147-8 (dogs).
 Horton, 48-59 (seal, bear, walrus), 108-9 (killing seals), 124 (walrus hunt), 141-2 (Peary's dogs).
 Wade, 38-48 (Eskimo dogs), 63-73 (seals), 81-90 (wolves and seals), 93-6 (polar bear), 103-7 (reindeer).
 Scandlin, 46-8 (Nannook, the bear), 110-15 (a walrus hunt).
 Starr, 10-12 (dogs).
 Andrews, Each and all, 2-6, 7-8 (dogs, etc.).
 Kirby, Fireside, 18-30 (various Arctic animals).
 King, Second Book, 14-20 (whaling), 185-6 (seal killing).
 Tarr & McMurry, Second Book, 361 (seals).
 King, Fifth Book, 102-5 (Alaska seal-fisheries).
 Carroll, Third Book, 131-2 (seals of Alaska).
 Jordan, Matka and Kotik (a story of seals, for children).
 Jordan, True Tales, 55-78 (story of a baby seal), 80-2 (the little blue fox), 111-12 (Arctic birds).
 DeChailu, Land of the long night, 155-60, 257-63 (Arctic animals).
 Mary Smith (whole book, for primary grades).

TEACHER'S ADDITIONAL REFERENCE:

- Adams, 88-90 (furs).
 Peary, Josephine, the snow baby, Frederick Stokes. (A delightful account of Arctic life, as experienced by a little white girl).

Written Work.

1. Tell about the Eskimo's dogs.
2. Tell how the seals live.
3. Tell about the polar bears.
4. Name as many of the other Arctic animals as you remember.
5. Of what use are the Arctic animals to white men?
6. Of what use are they to the Eskimos?

5. *Here men sought the northwest passage and the pole.*

Bring out the fact that the northwest passage, having finally been found, proved useless for commerce; and that recent Arctic explorations have been for purely scientific interests, in a search for the pole.

PUPILS' READINGS:

Johannot, Stories of other lands, 220-32 (story of Dr. Kane).
 Scandlin, 23-9, 34-83, 89-95, 100-125 (Hans with Dr. Kane).
 Schwatka, 202-12 (wintering in the Arctic land).
 Ingersoll, 77-100 (various attempts on the northern passage), 99-1 (search for the pole), 93-4 (the northeast passage found), 94-5 (sad story of the Jeannette).
 Horton, first frontispiece, a good polar map; second frontispiece, picture of the aurora, 9-13 (Franklin in the Arctic), 21-4 (Franklin's second journey), 25-31 (fate of the Franklin expedition), 32-9 (winter in the Arctic), 51-8 (traveling on the ice), 59-71 (the Arctic coasts of Asia), 72-80 (loss of the Jeannette), 81-6 (Greeley among the glaciers), 87-93 (rescue of Greeley), 110-13 (floating on the ice), 122-32 (Nansen's search for the pole), 149-53 (Andre and his balloon).
 Shaler, Story of our continent, 250-1 (search for the northwest passage).

TEACHER'S ADDITIONAL REFERENCE:

Oxley, 62-70 (search for the northwest passage).

Written Work.

1. Why was a northwest passage desired? Why did it prove useless, when discovered?
2. What are the present routes of commerce, for want of a northwest passage? What far shorter route shall we have by and by?
3. Describe any one of the Arctic expeditions by Greeley, Kane, De Long or Nansen.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 27, 95-7.
 Frye's Advanced geography, 38, 129.
 Tarr & McMurry, Second Book, 77-81, 131, 372-6.
 Tarr & McMurry, Introductory geography, 193.

THE WEST INDIES.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Use a blackboard map of these islands, in conjunction with the political map in the text-book. The blackboard map should show the adjacent lands of North America, in order to localize the region now being studied. By various interesting drills* teach the following locations, together with the oral and written spelling concerned:

*See note on drills, p. 50.

Cuba, Haiti, Porto Rico, Jamaica, Bahama Islands, Antilles.
 Atlantic Ocean, Gulf of Mexico, Caribbean Sea.
 Florida, Yucatan, Havana.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. Cuba, the land of sugar-cane and the volante; impoverished by her war with Spain, and lately free.
2. Porto Rico, a ward of the United States.
3. In Haiti are the twin black republics, with their ceaseless civil wars.
4. Jamaica is a peaceful British colony, where bananas grow.

1. Cuba, the land of sugar-cane and the volante; impoverished by her war with Spain, and lately free.

Preface the lessons on Cuba with a little general description of the archipelago.

Bring out the fact that the original Indian population of Cuba has entirely disappeared, and that the island is now thickly peopled by a race of Spanish blood. Close the study with a short description of the Spanish War, showing how sorely the Cubans were pressed, and how the United States intervened in their behalf.

PUPILS' READINGS:

- King, Second Book, 288-303 (the archipelago in general).
 Carpenter, Australia and islands, 319-20 (West Indies in general), 357-62 (Cuba in general), 362-6 (Havana), 367-70 (on the plantations), 370-5 (the Bahamas and Bermudas).
 Allen, 7-22 (the hot belt), 23-42 (bananas), 79-97 (coffee).
 Tarr & McMurry, Second Book, 330-36 (Cuba described), 79-98, 384-5 (in coffee land), 393-400 (West Indies in general).
 Miln, 259-66 (the Cubans).
 Kirby, Fireside, 84-8 (sugar-cane).
 Carroll, Second Book, 163-73 (queer Havana), 175-86 (in Cuba).
 Carroll, Third Book, 215-22 (in Cuba).
 Chamberlain, Fed., 146-54 (bananas), 104-12 (coffee).
 Rupert, 128-30 (coffee).
 Carpenter, North America, 332-4 (coffee).
 Peal, 259-61 (coffee).
 George, Little journeys, Central America, 58-60 (coffee).
 George, Little journeys, Porto Rico, 3-78 (numerous short readings on Porto Rico).
 George, Little journeys, Cuba, 3-77 (many short readings on Cuba).
 Kellogg, 187-99 (the archipelago described), 190-2 (Cuba in general), 193-200 (Havana), 195-6 (houses), 197-9 (the volante), 201-6 (on the plantations).
 Wade, Cuban cousin, 9-16 (fear of the Spaniards), 16-36 (hiding from the Spaniards), 37-44 (the volante, and adobe houses), 45-52 (how sugar is made), 53-71 (life on the plantations), 72-80 (the people whom Columbus found), 81-96 (how the Americans fought for Cuba), 97-106 (in Havana).
 Sealury, 84-98 (sugar, etc.).

TEACHER'S ADDITIONAL REFERENCE:

- Redway's Advanced geography, iii, 99-100.
 Adams, 177-81, 383-7.
 Davis, Cuba in wartime.
 Herlertson, Central and South America, xvii-xviii (Cuba summarized), 2-8 (short readings on Cuba).
 Ford, Tropical America (West Indian waters).
 Vincent, Around and about South America (West Indian waters).

Written Work.

1. Name the four main islands of the West Indies.
2. Tell about the climate, people and products of Cuba.
3. Tell what you have learned about Havana.
4. Tell about the Cuban War, and how our country helped.

2. *Porto Rico, a ward of the United States.*

Point out that the Porto Ricans are identical in race with the Cubans; that Porto Rico is one of the most densely populated areas of the earth; and that, while Cuba is now an independent republic, the governing of Porto Rico is yet in the hands of the United States.

PUPILS' READINGS:

Tarr & McMurry, Second Book, 330-6, 393 (Porto Rico described).
 Kellogg, 220-5 (people and places in Porto Rico).
 Carpenter, Australia and islands, 329-44 (people and places in Porto Rico).
 Wade, Porto Rico cousin (whole book, third to sixth grades).
 Carroll, Second Book, 188-95 (the Porto Ricans).
 Carroll, Third Book, 223-7 (in Porto Rico).
 Greater America, 3-64 (six short readings on Porto Rico).
 Seabury, 15-24 (island of Porto Rico), 25-37 (odd sights in San Juan), 37-46 (home life of the peons), 46-54 (cock fighting and carnivals), 54-65 (mountains and caves), 66-76 (rivers and soil), 76-84 (climate and hurricanes), 84-98 (sugar and other products), 99-109 (tropical fruits and flowers), 109-16 (forests and mines), 116-23 (animals), 124-52 (towns of Porto Rico), 152-61 (roads), 161-7 (first American census), 167-77 (the schools), 177-81 (the money), 181-9 (how the Americans took Porto Rico), 189-99 (setting up the new government), 199-215 (historical sketch).

TEACHER'S ADDITIONAL REFERENCE:

Redway's Advanced geography, iv.
 Adams, 168-70.
 Herbertson, Central and South America, xviii (Porto Rico summarized), 19-20 (short readings on Porto Rico).

Written Work.

1. Locate and describe the Island of Porto Rico.
2. Tell who the people are, and about their condition.
3. Tell about the present government.

3. *In Haiti are the twin black republics, with their ceaseless civil wars.*

Even this crudely organized community of blacks (Santo Domingo) was able to throw off the Spanish rule and assert its independence. Here are two negro republics, constantly wasting their substance in petty internal strife. Their governments are upon such a very unstable basis that foreign powers find it difficult to maintain any regular diplomatic relations.

PUPILS' READINGS:

Tarr & McMurry, Second Book, 395-7 (the people of Haiti).
 Carpenter, Australia and islands, 344-51 (the shabby black republics).
 Kellogg, 207-13 (the black republics and their people).

TEACHER'S ADDITIONAL REFERENCE:

Redway's Advanced geography, 100.
 Herbertson, Central and South America, xviii (Haiti summarized), 15-18 (short readings on Haiti).
 Ford, Tropical America.
 Vincent, Around and about South America.

Written Work.

1. Locate and describe the island of Haiti.
2. Tell what you have learned about the people.

4. *Jamaica is a peaceful British colony, where bananas grow.*

It is worth while to contrast the unbroken day dream of existence in this island with the insecurity and ceaseless trouble which have characterized its neighbors. The pupil should remember Jamaica for its bananas and its ginger.

PUPILS' READINGS:

Carroll, Second Book, 173-5 (bananas).
 Tarr & McMurry, Second Book, 394-5 (Jamaica described).
 Carpenter, Australia and islands, 352-6 (spices of Jamaica).
 Kellogg, 213-20 (people and products of Jamaica).
 Allen, 23-44 (banana land), 45-61 (Jamaica ginger).
 Chamberlain, Fed., 140-54 (bananas).

TEACHER'S ADDITIONAL REFERENCE:

Herbertson, xix (Jamaica summarized), 8-15 (short readings on Jamaica).

Written Work.

1. Locate the island and describe life in Jamaica.
2. Name two of the chief products and say how they are grown.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, iii-iv, 99-100.
 Frye's Advanced geography, 160.
 Tarr & McMurry, Second Book, 330-6, 393-400.
 Tarr & McMurry, Introductory geography, 197-8.

ALASKA.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Draw a blackboard map of Alaska and use it in conjunction with the most detailed map shown in the text-book. By various interesting drills * teach the following locations, together with the oral and written spelling:

Arctic Ocean, Pacific Ocean, Bering Strait, Bering Sea.
 Alaska, Asia, Canada.
 Yukon River, Muir Glacier, Mt. McKinley, Mt. Logan.
 Sitka, Dawson, Nome.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. Alaska is a land of totem-poles and salmon-fishers.
2. It is a region of highest mountains and stupendous glaciers, with a mild coast climate.
3. In Alaska are rich deposits of placer gold.

1. *Alaska is a land of totem-poles and salmon-fishers.*

The Arctic side of Alaska, with its Eskimos, was studied under the head of Arctic America. The region along the Pacific shores is different in every respect. The natives are Indians, whose tribal lore is recorded in their curious totem-poles. This rugged coast is one of the great salmon-fishing regions of the world.

PUPILS' READINGS:

Carroll, Second Book, 946 (totem-poles and Indians).
 Carpenter, 302-6 (totem-poles and Indians).

* See note on drills, p. 53.

Our country west, 3-11 (stories about Sitka), 12-15 (Indian canoe building), 17-20 (the salmon-fisheries), 45-8 (hermits of western Alaska), 49-52 (seal-hunters), 21-5 (the Alaskan coast).

King, Fifth Book, 94-101 (Alaska Indians), 92-4 (Sitka).

Smith, 197-8 (salmon).

TEACHER'S ADDITIONAL REFERENCE:

Herbertson, 23-4 (Alaska Indians as fishermen), 28-9 (the more southern Eskimos), 21-3 (forests of Alaska).

Written Work.

1. Describe the ways of living among the Alaskan Indians.
2. Describe the totem-poles and tell what they mean.
3. Tell about the salmon-fisheries.

2. *It is a region of highest mountains and stupendous glaciers, with a mild coast climate.*

Note Mts. McKinley and Logan, the highest two peaks on our continent (respectively 20,500 and 19,500 feet). Take the Muir Glacier as a type of those in Alaska, and review the birth of icebergs, as taught in the topic Arctic America. But do not let this presence of the glaciers obscure the fact that this region has a climate and landscape by no means Arctic.

PUPILS' READINGS:

Our country west, 40-3 (volcanoes of Alaska), 21-5 (the Alaskan coast), 31-5 (reindeer in Alaska).

Carpenter, 298-301 (mountains and glaciers of Alaska).

Minna Smith, 195-9 (the vast country).

King, Fifth Book, 78-91 (mountains and glaciers of Alaska).

Carroll, Third Book, 124-9 (the passes over the mountains).

Dodge, 121-32 (glaciers and icebergs).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 87-8 (origin of the islands of Alaska).

Herbertson, 150-3 (mountains of Alaska).

Tarr & McMurry, Utah Supplement, 16-19 (glaciers described).

Dryer, 109-21 (Alaskan glaciers, and others).

Davis, 324-30 (glaciers in general).

Gilbert and Brigham, 119-32 (glaciers, in Alaska and elsewhere), 72-3 (Yukon River).

Written Work.

1. Tell about the mountains of Alaska and name two high peaks.
2. Tell about the Muir Glacier, and about icebergs.
3. What are some of the differences between this region and the Arctic region?

3. *In Alaska are rich deposits of placer gold.*

Locate two centers of activity in the Alaska placer mining: one at Cape Nome, where the sands are washed for their gold, and the other in the Yukon basin, centering around Dawson, where the metal is found in nuggets, buried in gravel-beds under the reindeer moss. Bring out the difficulties besetting those pioneers who joined in the first gold rush to the Yukon country: the difficult snowclad passes, the dangerous rivers, etc. While we hear principally of the placer mining of Alaska, there is, on one of the coast islands, one of the richest quartz mines in the world—the Treadwell.

PUPILS' READINGS:

Carpenter, 307-9 (Yukon gold).

Our country west, 37-9 (Yukon gold-hunters).

Horton, 94-103 (the Yukon country).

Carroll, Third Book, 122-31 (the gold fields of Alaska), 124-9 (the passes over the mountains).

Tarr & McMurry, Second Book, 328-30 (Alaska mining).

See, also, the readings on placer mining under Unit 2, Pacific Region, p. 120.

TEACHER'S ADDITIONAL REFERENCE:

Herbertson, 25-8 (the Yukon River country).

Written Work.

1. Describe the gold-mining of Alaska, and locate the two principal centers.
2. Tell about the gold rush to Alaska.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 91.

Frye's Advanced geography, 120-22.

Tarr & McMurry, Second Book, 323-30.

Tarr & McMurry, First Book, 188-9.

THE CANADIAN PROVINCES.

This region includes all of British America except the extreme north, which has already been studied under the caption "Arctic America."

Read "Note on Method," p. 53.

Formal Geography of the Region.

Use a blackboard map of the region, in conjunction with the political map in the text-book. Teach, by various interesting drills,* the following locations, together with the oral and written spelling concerned:

Provinces of Quebec, Ontario, New Brunswick, Nova Scotia, Manitoba, British Columbia, Labrador; Newfoundland.

Cities of Montreal, Quebec, Ottawa, Toronto, Halifax, Winnipeg, Vancouver, Victoria.

Great Lakes (as a whole), St. Lawrence River, Gulf of St. Lawrence, Hudson Bay, Lake Winnipeg, Rocky Mountains, Vancouver Island.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. A southern belt, populous with progressive whites, who are very much like ourselves. 2. North of this, a lonesome sub-arctic region, abandoned to the fur hunter.

1. A southern belt, populous with progressive whites, who are very much like ourselves.

This unit should leave the pupil with four distinctly localized ideas concerning the region: Newfoundland is notably a community of poor fishermen. The thickly populated district extends from Quebec westward to

* See note on drills, p. 10.

Lake Huron. Between the Great Lakes and the Rockies lie the prairie lands of Canada, including the famous wheat region of Manitoba. The far west is the region of stupendous scenery, soft climate and rapidly increasing population.

PUPILS' READINGS:

- Carpenter, 315-16 (Newfoundland Banks), 316-27 (cities of Canada).
 Shaler, Story of our continent, 178 (the St. Lawrence Valley as a place to live).
 King, Second Book, 146-58 (St. Lawrence and Niagara), 150-64 (climate of Canada), 165-9 (lumbering), 177-85 (Newfoundland fisheries), 189-92 (the provinces), 192-8 (the prairies), 198-206 (Canadian cities), 207-21 (Newfoundland), 222-31 (Nova Scotia and New Brunswick), 232-50 (the Canadian Rockies).
 George, 9-93 (the cities of Canada).
 Tarr & McMurry, Second Book, 351-6 (Canada in general), 356-8 (lumbering), 358-60 (fishing), 362-5 (farming), 366-71 (cities of Canada).
 Eggleston, Stories of American life, 51-6 (the St. Lawrence).
 Kellogg, 160-5 (Newfoundland), 165-72 (Cape Breton and Prince Edward Islands).
 Miln, 222-36 (Canadian outdoor life).
 Children of the world, 202-6 (outdoor sports of Canada).

TEACHER'S ADDITIONAL REFERENCE:

- Herbertson, xxiii-xxiv (the provinces summarized), 30-2 (Newfoundland fishermen), 32-7 (short readings on Nova Scotia and New Brunswick), 37-40 (climate of Canada), 40-8 (St. Lawrence and Ottawa rivers), 70-3 (the Red and Saskatchewan rivers), 42, 45-6, 49 (Quebec, Ottawa, Montreal), 50-5 (Canadian lumbering), 55-7 (Canadian farmers), 57-9 (the French Canadians, or "Habitants"), 59-62 (forest fires in Canada), 62-4 (fruit farms in Ontario), 65 (the Canadian "Soo"), 65-8 (Niagara Falls), 68-72 (the wheat prairies of the west), 74-7 (the Canadian Rockies), 77-81 (British Columbia).
 Stoddard, Lecture, Canada.
 Adams' Commercial geography.
 Chisholm, 370-9.
 Oxley, 145-56 (building the Canadian Pacific Railway), 197-219 (lumber camps).

Written Work.

1. Tell about the people of Newfoundland.
2. What part of Canada is most thickly populated?
3. Tell something about the Canadian cities.
4. Describe the region between the Great Lakes and the Rockies.
5. Describe the British Columbia region.

2. *North of this, a lonesome sub-arctic region, abandoned to the fur hunter.*

Between the land of Eskimos and icebergs on the north and the populous and civilized belt of the south, there is a vast middle region, including the basin of Hudson Bay and the southern part of the Mackenzie basin. Here, in this untamed wilderness, is one of the greatest game preserves yet remaining on earth. In the olden time it was partly exploited by the Hudson Bay Company, and to-day it is still one of the world's great fur countries. Its scant population is made up of trappers and traders.

PUPILS' READINGS:

- Chamberlain, Clothed, 129-46 (fur bearers of Hudson Bay district).
 Carpenter, 310-14 (the wilds of the Hudson Bay region).
 Horton, 14-20 (Franklin in the Hudson Bay country).
 Rupert, 93-9 (animals of the fur country).
 King, Second Book, 170-7 (fur-trappers of Hudson Bay region).
 Kirby, Fireside, 77-9 (beaver).
 Dodge, 53-5 (hunting centers).

TEACHER'S ADDITIONAL REFERENCE:

- Herbertson, 5-10 (Labrador and the great lone land), 10-12 (the fur-traders' country), 12-18 (the forest Indian), 19-20 (the Peace River country).
 Shaler, Story of our continent, 169-71 (the sub-Arctic lands), 81-2 (formation of Hudson Bay), 99-100 (the Laurentian plateau), 102-3 (the Mackenzie River), 104-5 (rivers and lakes of the Hudson Bay country), 115-16 (stunted trees of the north).
 Adams' Commercial geography, 88-90 (furs), 188 (Hudson Bay fur trade).
 Chisholm, 152-3 (the fur trade).
 Oxley, 96-144 (story of the Hudson Bay Trading Company).

Written Work.

1. Locate the fur country and describe it.
2. Tell about the people who live there.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 93-6.

Frye's Advanced geography, 129-32.

Tarr & McMurry, Second Book, 351-71.

Tarr & McMurry, Introductory geography, 190-2.

THE UNITED STATES.

Structural Geography.

Give a review of structural North America (see pp. 67-71) sufficient to fix the following points:

1. A great western plateau, a lesser eastern plateau, and a central lowland between. 2. An eastern extension of the central lowland, forming the Atlantic Plain. 3. Two important Pacific lowlands—the California valley and the Columbia River valley. 4. The Atlantic coast is rocky, with good harbors, in its northern half; and sandy, with poor harbors, in the south. The Pacific coast is a cliff broken by few harbors, but among these are two of the first class.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 49-53.

Frye's Advanced geography, 64-7.

Tarr & McMurry, Second Book, 5-12, 19-21.

Tarr & McMurry, Introductory geography, 139.

Formal Geography of the United States.

Use a blackboard map, in conjunction with the political map in the text-book. By various drills * teach the following locations, together with the oral and written spelling concerned.

Atlantic and Pacific oceans; Gulf of Mexico; Great Lakes.

Appalachian, Rocky, Sierra Nevada mountains.

Mississippi, St. Lawrence, Colorado, Columbia, Rio Grande, Missouri, Ohio rivers.

New York, Chicago, San Francisco, New Orleans, Washington.

Memorize the States in Groups.

1. The states bordering the Pacific Ocean (3).
2. The states and territories bordering Mexico (4).
3. The plateau states and territories (8).
4. States on the west bank of the Mississippi (5).
5. States and territory due north of Texas (6).

*See note on drills, p. 50.

6. States on the east bank of the Mississippi (5).
7. Gulf states (5).
8. New England states (6).
9. Other Atlantic states (include West Va. and Penn.) (11).
10. Lake states (8).

Test.

The correct filling of outline maps (see foot-note, p. 14). Two separate outlines will be required, and the work may take two lessons, if necessary. Let the first tracing include only the boundary and the rivers called for. In the test this map is to be filled with the structural features and cities in the above list. The second tracing need include nothing but state boundaries. The test is to fill it with the names of the states and territories.

NEW ENGLAND STATES.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Draw a mass map of these states on the board and use it in conjunction with the text-book political map. By various drills * teach the following locations, together with the oral and written spelling.

The boundaries of New England as a whole.

Memorize the states in order, from the map.

Cape Cod; White Mountains, Mt. Washington; Champlain and Moosehead lakes; Connecticut, Merrimac, and Kennebec rivers.

Boston, Worcester, Lowell, Fall River, Providence, Hartford, New Haven.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. The land of the Pilgrim fathers, and of literary fame. 2. New England has important fisheries, and Gloucester is the great fishing port. 3. The thin-soiled, rocky country affords poor farms but fine quarries. 4. The lumber of Maine has built many ships. 5. The rivers have powerful falls, and manufacturing cities have grown up. 6. The indented sea-front affords good harbors, and Boston is upon one of them. 7. New England has crops of cranberries, maple sugar, and ice.

1. The land of the Pilgrim fathers, and of literary fame.

Leave with the pupil a conception of New England as the cradle of our national patriotism and our culture.

PUPILS' READINGS:

Our country east, 195-9. (Plymouth Rock), 200-4 (old Provincetown).
Carpenter, 91-9 (historic Boston).
Carroll, Third Book, 203-11 (historic Boston).

*See note on drills, p. 50.

Carver & Pratt, 65-71 (first blood of the Revolution).
 Mowry, 143-8 (Colonial conditions), 202-6 (Colonial days).
 Rocheleau, Products of the soil, 141 (a "husking bee").
 Smith, 40-7 (in Boston).
 King, Fourth Book, 87-106 (historic Boston, etc.).
 Eggleston, 21-37 (Colonial stories).
 Tarr & McMurry, New England Supplement, 16-32 (history of New England).
 Pratt, Stories of Massachusetts, 13-68 (Pilgrims, Indians, etc.), 69-131 (Revolutionary tales), 153-63 (Salem witches), 133-76 (Concord and the great authors).
 Blaisdell, 9-48 (Colonial stories).
 Children of the world, 217-33 (child life in New England).
 Andrews, Ten boys, 191-206 (Puritan days), 207-28 (Colonial days).
 McMaster, 16-20 (the Indians), 56-64 (the coming of the Pilgrims), 64-72 (pioneer life in New England).

TEACHER'S ADDITIONAL REFERENCE:

Brigham, 60-9 (the literary side of New England).

Written Work.

1. Tell the story of the Pilgrims, and of Plymouth Rock.
2. Give some facts to show that New England has been the cradle of our patriotism and culture.

2. *New England has important fisheries, and Gloucester is the great fishing-port.*

Keep well to the picturesque, or wonder, side, but also present the fact that here are communities looking almost wholly to the products of the sea for a living. Compare with your home town in this respect.

PUPILS' READINGS:

Pratt, Stories of Massachusetts, 201-48 (Cape Cod and Gloucester fishing).
 Carpenter, 315-16 (the Newfoundland banks).
 Tarr & McMurry, Second Book, 130-9 (New England fisheries).
 Chase & Clow, Vol. II, 114-29 (cod-fishing, etc.).
 Our country east, 203-4 (Provincetown whalers), 229-32 (a fish-farm).
 Chamberlain, Fed, 54-69 (cod-fisheries).
 Beal, 120-61 (cod, herring, etc.).
 Industries of today, 1-11 (New England fisheries).
 King, Second Book, 14-20 (whaling), 177-88 (cod, herring, etc.).
 Carroll, Third Book, 170-87 (New England fisheries).
 Smith, 51-5 (New England fisheries).
 Eggleston, 66-76 (New England fisheries).
 Talks about animals, 3-51 (short readings on coast fisheries).
 Carver & Pratt, 133-4 (fisheries).
 Wood, 8-14 (whaling).
 Tarr & McMurry, New England Supplement, 33-8 (New England fisheries).
 Dodge, 53-5 (fishing centers).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 274-5 (New England fisheries).
 Brigham, 57-8.
 Chisholm, 159-64 (fisheries in general).
 Redway's Advanced geography, 38-9.
 Adams, Commercial geography, 82-8.
 Kipling, Captains Courageous.

Written Work.

1. Give a little account of Gloucester as a fishing-port.
2. Tell about the fishing grounds, and the life of the fisherman.

3. *The thin-soiled, rocky country affords poor farms but fine quarries; and the New England lakes and sea cliffs make famous summer resorts.*

Show how her rocks and lakes thus become a genuine resource, in the absence of those vast agricultural lands which are the chief wealth of the western states.

PUPILS' READINGS:

- Tarr & McMurry, Second Book, 124-7 (the surface of New England), 133-6 (the quarries), 139-4 (the small farms), 151-4 (the summer resorts).
 Dodge, 55-7 (scenic centers), 113-16 (character of lakes), 127-32 (how the moraines were made), 132-6 (work of the great ice sheet).
 Clifford, 150-5 (the quarries).
 Fairbanks, Home geography, 112-15 (quarries).
 Carpenter, 88-9 (quarries), 76-7 (controls), 84-7 (scenery).
 Chase & Clow, Vol. I, 134-41 (quarries).
 Rocheleau, Minerals, 113-62 (quarries).
 King, Third Book, 65-8 (quarries), 95-117 (scenery).
 Carroll, Third Book, 189-97 (New England mountains), 28-38 (Maine woods).
 King, Fourth Book, 106-39 (picturesque New England).
 King, Second Book, 80-9 (White Mountains).
 Smith, 48-51 (mountains).

TEACHER'S ADDITIONAL REFERENCE:

- Herbertson, 88-90 (romantic scenery).
 Tarr & McMurry, New England Supplement, 3-16 (physiography of New England), 43-6 (the small farms), 48-9 (granite quarries), 70-6 (the interior region of Massachusetts), 77-82 (Rhode Island), 82-90 (Connecticut), 91-9 (New Hampshire), 99-107 (Vermont), 107-15 (Maine).
 Shaler, Story of our continent, 65-75 (the glacial drift), 83-4 (glacial results in New England), 107-9 (New England rivers).
 Redway, New basis, 114.
 Brigham, Chap. II (the physical making of New England), 45-6 (the quarries), 47-8, 63-4 (why the farms are poor).
 Gilbert & Brigham, 132-50 (the glaciation of New England), 181-2 (mountains of New England).

Written Work.

1. Compare the natural resources of New England with those of the prairie states.
2. Name the quarry products of New England and describe a quarry.
3. Tell about the summer resorts.
4. *The lumber of Maine has built many ships.*

Note the circumstances of eastern lumbering, so different from those of California. There they depend upon the snow for hauling, and winter is the season of activity. On the Pacific Slope these seasons are reversed, the rains of winter closing down the coast camps. The Sierras have winter snows, but there, too, summer is the logging season. Note that our greatest timber source is now in the Lake Superior region.

PUPILS' READINGS:

- Our country east, 233-7 (Maine lumbering).
 Chase & Clow, Vol. I, 121-5 (lumber), 126-33 (ship-building).
 Tarr & McMurry, Second Book, 252-4 (lumber), 127-32 (New England lumbering).
 Bradish, 39-49 (a logging-camp).
 Rocheleau, Products of the soil, 9-36, 46-50 (a lumber-camp).
 Industries of today, 50-67 (lumbering).
 Tarr & McMurry, New England Supplement, 38-42 (lumber and pulp).
 Carpenter, 184-9 (lumbering).
 Carroll, Third Book, 80-81 (lumber).
 Dodge, 43-6 (lumbering centers).
 King, Second Book, 165-9 (lumber-camp).
 Herbertson, 50-5 (a typical lumber-camp), 59-62 (a forest fire).

TEACHER'S ADDITIONAL REFERENCE:

- Oxley, 197-219 ("From forest to floor").
 Brigham, 49-50 (New England forests).
 Redway, New Basis, 103-4.

Written Work.

1. Describe a Maine logging camp.
2. Why has Maine ship-building declined?

5. *The rivers have powerful falls, and manufacturing cities have grown up.*

Let the pupil leave this topic with a general notion of the distribution of occupations. Here in New England are hundreds of thousands of people

busied almost wholly in the factories themselves, or in close connection with them, while in Texas, or the Dakotas, or the valleys of California, the occupations are totally different. What is the characteristic vocation in your own locality?

Avoid, in this treatment, any detailed examination into the *processes* of manufacture.

Note the "fall line," the eastern edge of the highlands at which each river has its last rapids. Show how these falls, or rapids, at first determined the locations of the manufacturing cities; and how, later on, the cheap production of coal made it profitable to manufacture without regard to falls.

Bring out the fact that New England is at a disadvantage in her manufacturing, since she has to send to a distance for both her coal and her raw materials, such as cotton and iron.

PUPILS' READINGS:

- Chamberlain, *Clothed*, 72-9 (cloth weaving in Massachusetts), 99-104 (leather-making in Massachusetts), 154-66 (pins, needles, thread, etc.—varied manufactures of New England), 167-79 (the shoemakers of New England), 180-96 (hats and gloves), 197-203 (buttons).
 Clifford, 39-110 (various manufactures).
 Chase & Clow, Vol. II, 12-29, 75-8, 102-3 (factories of New England).
 Tarr & McMurry, *Second Book*, 141-7 (New England manufacturing).
 Carpenter, 76-80, 82-4 (factories).
 Rocheleau, *Products of the Soil*, 114-16 (manufactures).
 King, *Third Book*, 24-39, 47-61 (New England mills).
 Smith, 37-8, 56-7 (New England manufacturing).
 Carver & Pratt, 116-28 (cotton manufacturing).
 Chase & Clow, Vol. I, 86-117 (varied metal manufacturing).
 Parker, 125-69 (pins, needles, nails, etc.).
 Wood, 33-41 (a shoe factory).
 Pratt, *Stories of Massachusetts*, 275-311 (the manufacturing cities).
 Tarr & McMurry, *New England Supplement*, 21-3 (early manufacturing), 49-56 (textiles), 57-9 (shoemaking), 60-2 (metals and machinery).
 Dodge, 47-9 (manufacturing centers).

TEACHER'S ADDITIONAL REFERENCE:

- Herbertson, 113 (the fall line), xxvii, 92-3 (New England as a manufacturing center).
 Frye's *Advanced geography*, 93-4 (the fall line).
 Brigham, 72 (the fall line), 50-3, 64 (New England industries).
 Adams, 139-46, 165 (our enormous manufacturing), 54 (the fall line).
 Davis, 127-9 (the fall line).
 Gilbert & Brigham, 42, 65 (the fall line).
 Redway, *New basis*, 105-6, 108.

Written Work.

1. Tell about the fall line, and how the river falls have built up New England.
2. Under what disadvantages does the manufacturing in New England rest?

6. The indented sea-front affords good harbors, and Boston is on one of them.

Turn to the text-book maps of New England and of the Pacific Coast. Note that the New England coast from one end to the other is a succession of protected inlets. Compare with the almost continuous cliff of the Pacific margin of our country; and, in the latter, note the two great exceptions, San Francisco Bay and Puget Sound.

Discuss—just what is a harbor? A bay, or inlet, sheltered from storms, so that shipping may find a quiet anchorage. Elicit that a region without

harbors can have no share in ocean commerce. Tell of breakwaters, such as that at Chicago, or at Galveston, built to form artificial harbors.

PUPILS' READINGS:

- Tarr & McMurry, Second Book, 124-6 (New England's harbors), 148-51 (coast cities of New England).
 Tarr & McMurry, New England Supplement, 19-21 (early commerce of New England), 63 (trade centers), 63-70 (Boston).
 Industries of today, 119-26 (a Boston market).
 Our country east, 219-24 (a Boston market).
 Carpenter, 91-5 (Boston as a port), 80-2 (Maine, the "state of a hundred harbors").
 Mowry, 241-2 (the Boston subway).
 King, Third Book, 40-6 (New England ports).
 Dodge, 11-13 (value of harbors), 105-8 (lagoons and bars: types of poor harbors, as a contrast), 165-70 (drowned valley harbors).

TEACHER'S ADDITIONAL REFERENCE:

- Herbertson, xxvii-xxviii (New England summarized).
 Redway, New basis, 83-8 (controls).
 Brigham, 53-9 (New England's harbors).
 Dryer, 95 (drowned valleys as harbors), 227-9 (rising and sinking coasts).
 Davis, 95-7 (changing coastlines), 195-7, 296 (drowned coast harbors).
 Shaler, Aspects, 7-9 (rising and sinking coasts, instance of the Temple of Jupiter).
 Gilbert & Brigham, 10-11, 63-5, 314 (rising and sinking coasts), 302-4 (harbors of New England).

Written Work.

1. What is a harbor?
2. Tell about good harbors and poor harbors, and how they are made.

7. *New England has crops of cranberries, maple sugar, and ice.*

Associate the cranberry industry particularly with the Cape Cod country.

PUPILS' READINGS:

- Chamberlain, Fed, 87-90 (sugar), 131-8 (cranberries).
 Our country east, 205-10 (cranberries), 225-8 (sugar), 238-43 (ice).
 Bradish, 5-8 (sugar).
 Carpenter, 89-90 (sugar).
 Rocheleau, Products of the soil, 68-76 (sugar).
 Beal, 225-7 (sugar).
 King, Third Book, 75-7 (sugar).
 Carroll, Third Book, 198-201 (sugar), 212-14 (ice).
 Industries of today, 27-36 (ice), 45-53 (cranberries), 54-8 (sugar).

Written Work.

1. Tell how maple sugar is made.
2. Tell about Cape Cod cranberries.
3. Tell about the ice crop.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

- Redway's Advanced geography, 38-9, 41, 63-5.
 Frye's Advanced geography, 88-92.
 Tarr & McMurry, Second Book, 124-56.
 Tarr & McMurry, Introductory geography, 142-8.

MIDDLE ATLANTIC SEABOARD.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Draw a blackboard map showing the coastal region from New York Bay to Chesapeake Bay, inclusive. Use this in conjunction with the text-book

map of the region and teach the following locations.* Teach also the oral and written spelling concerned:

New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, District of Columbia.

Cities of New York, Philadelphia, Baltimore, Washington, Norfolk.

Hudson, Delaware, Susquehanna, Potomac, James rivers; Erie Canal.

New York, Delaware, and Chesapeake bays; Long Island, Long Island Sound.

Adirondack, Catskill, and Alleghany mountains.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. *Here is a region of fine harbors, enormous cities, and a world-wide merce.* 2. Washington, on the Potomac, is the nation's capital.

1. *Here is a region of fine harbors, enormous cities and a world-wide commerce.*

Bring out the fact that here, from New York to Washington, is the most thickly populated region in the western hemisphere. Notice, in this connection, the fine harbors of New York, Philadelphia, and Baltimore. Associate the supremacy of New York with two factors: Its fine harbor and its easy way to the west via the Mohawk Valley. Show the early importance of the Erie Canal, but leave the impression that it has long since yielded first place to the railroads.

Give some special attention to New York harbor: The Bartholdi Light; the Brooklyn Bridge; Sandy Hook; the enormous marine movement.

PUPILS' READINGS:

- Carpenter, 45-75 (the cities), 193-202 (Erie Canal and Niagara).
- Our country east, 174-92 (cities).
- Smith, 25-33, 73-9 (the cities).
- Tarr & McMurry, Second Book, 19-20 (harbors), 180-95 (cities).
- Mowry, 220-2 (the Erie Canal).
- Carroll, Third Book, 4-13 (New York City), 23-7 (Niagara).
- King, Third Book, 154-60 (New York City), 171-80 (New York commerce), 195-214 (Philadelphia).
- Eggleston, 46-50 (Erie Canal).
- Ingersoll, 165-8 (ocean greyhounds).
- King, Fifth Book, 61-77 (the military school at West Point).
- Dodge, 11-13 (value of harbors), 23-6 (Greater New York), 30-2 (centers of life), 33-6 (commercial centers), 105-8 (lagoons and bars), 165-70 (drowned valley harbors).

TEACHER'S ADDITIONAL REFERENCE:

- Tarr & McMurry, New York Supplement, 31-46 (New York and vicinity), 54-8 (Hudson and Mohawk waterway).
- Shaler, Story of our continent, 107-19 (eastern rivers and harbors).
- Herbertson, xxvii-xxx (Greater New York), 119-22 (New York), 122-3 (Philadelphia), 94-9 (Mohawk waterway).
- Redway, New basis, 83-8, 93-5.
- Bingham, Chap. I (the Mohawk Valley and Erie Canal), 25-36, 91-2 (why New York is there), 70-72 (the coastal plain), 72-6 (the harbors).
- Dryer, 92 (drowned valleys as harbors), 227-9 (rising and sinking coasts).
- Redway's Advanced geography, 34 (density of population), 41-2 (commerce), 42-3 (features of large cities), 57 (distribution of people).
- Tarr & McMurry, Pennsylvania supplement, 62-5 (Philadelphia).
- Adams, 17, 18, 19 (coasts and harbors), 22-6 (sites for cities), 30-8 (commerce and population), 157-61 (ports and ocean traffic).

*See note on drills, p. 70.

Davis, 95-7 (changing coastlines), 113-16 (the eastern seaboard), 195-7, 296 (drowned coast harbors).
 Shaler, Aspects, 7-9 (rising and sinking coasts; celebrated instance of the Temple of Jupiter).
 Gilbert & Brigham, 10-11, 93-5, 314-15 (rising and sinking), 302-16 (our harbors in the making).

Written Work.

1. How did New York come to be the metropolis?
2. Describe New York harbor.
3. Compare the region from Boston to Washington with other parts of the country as to population.

2. *Washington, on the Potomac, is the nation's capital.*

Develop, briefly, a cumulative idea beginning with a city hall and its purposes, passing thence to the notion of a state capital, and finally to a capital city for the whole country—a place where the President lives, where Congress meets, where our national laws are made, and where the ambassadors from other countries are stationed. Leave the impression that Washington is our most beautiful American city.

PUPILS' READINGS:

Carpenter, 14-15.
 Smith, 11-20.
 Our country east, 131-43.
 Tarr & McMurry, Second Book, 195-6.
 Carroll, Third Book, 47-52.
 King, Third Book, 215-32.
 Brooks, whole book (profuse and highly descriptive illustrations).

TEACHER'S ADDITIONAL REFERENCE:

Herbertson, 123-5.
 Ralph, 337-72.

Written Work.

1. Write a little description of Washington, telling where it is, why it is important, and something of the work done there.
2. Describe Washington as a city.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 34, 41-3, 57, 66-72.
 Frye's Advanced geography, 92-8.
 Tarr & McMurry, Second Book, 180-96.
 Tarr & McMurry, Introductory geography, 149-58.

THE APPALACHIAN REGION.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Draw a blackboard map showing the Appalachian highland and the states traversed by it. Use this in conjunction with the text-book map of the region and teach the following locations.* Teach also the oral and written spelling:

*See note on drills, p. 50.

Appalachian Highland, Alleghany Mountains.
Susquehanna, Delaware, and Hudson rivers.
Pittsburg, Buffalo, Rochester, Scranton, Niagara Falls.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. The Appalachian highland is a region of great coal and iron mines.
2. This region yields a large supply of petroleum and natural gas.
3. Because of these supplies, together with water power, a region of heavy manufactures.

1. The Appalachian highland is a region of great coal and iron mines.

While coal is mined in many other parts of the world, this is *characteristically*, and not *incidentally*, a coal-mining region. The subject should therefore be studied at some length under this head, while elsewhere its mention may possibly be omitted altogether, or at least until we come to the study of the British Isles, where again it becomes of prime significance. For the same reason iron and steel are to be studied somewhat fully here because we want this topic identified, in the pupil's memory, especially with this region. A review of the iron and steel topic will occur in the study of the Great Lake Region and the British Isles. But elsewhere it will receive only a passing mention.

PUPILS' READINGS:

Carpenter, 211-18 (coal), 218-25 (iron: Pittsburg).
Bradish, 96-101 (what coal is made of), 102-4 (first use of coal), 105-9 (opening a mine), 110-20 (down in the mine), 121-6 (danger in the mines), 127-30 (the coal breaker), 134-6 (about iron), 137-43 (iron ore, pig iron, ore docks), 144-6 (steel).
Tarr & McMurry, Second Book, 170-2 (coal), 174-9 (iron and steel; the manufacturing region), 3-5 (the story of coal), 255-6 (coal of the Mississippi slope).
Parker, 11-41 (coal), 72-99 (iron), 100-24 (steel).
Carroll, Third Book, 53-9 (iron and coal).
Rocheleau, Minerals, 7-44 (coal), 75-112 (iron and steel).
Shaler, First Book in geology, 54-5 (the making of coal).
King, Fourth Book, 51-60 (iron and steel), 71-86 (coal).
Chase & Clow, Vol. 1, 5-24 (coal), 67-89, 107-11 (iron and steel), 141-57 (bricks and glass).
Fairbanks, Stories of Mother Earth, 185-90 (coal, graphite, diamond).
Andrews, Stories Mother Nature told, 130-8 (coal).
Smith, 68-71 (coal).
Mowry, 41-50 (how coal came into use).
Dodge, 49-52 (mining centers).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 38-45, 200-10 (the formation of coal), 93-8 (the Appalachian Mountain system), 208, 224 (the varied products of mines), 215-19 (the various Appalachian coal-fields), 222-3 (iron deposits).
Greene, Coal and the coal mines (a simple and very readable story of coal, in all the phases of the subject).
Redway's Advanced geography, 22 (peat and coal).
Tarr & McMurry, Pennsylvania Supplement, 32-43 (coal industry of Pennsylvania), 43-9 (iron and steel industry).
Tarr & McMurry, Ohio Supplement, 41-4 (coal of Ohio).
Adams, 116-27 (coal and iron).
Chisholm, 164-74, 389-99 (coal and iron in general).

Written Work.

1. Tell how coal was formed.
2. Tell about the various kinds of coal.

3. Describe a coal mine.
4. Tell how iron is obtained.
5. What is the difference between iron and steel?

2. *This region yields a large supply of petroleum and natural gas.*

In this study note also the by-products of petroleum, and, in a general way, how they are obtained.

PUPILS' READINGS:

Shaler, First Book in geology, 54-5 (the source of petroleum).
 Carpenter, 203-10 (oil and gas).
 Carroll, Third Book, 60-2 (oil).
 Rocheleau, Minerals, 45-68 (oil), 69-74 (gas).
 King, Fourth Book, 61-70 (oil).
 Chase & Clow, Vol. 1, 25-30 (gas), 31-4 (oil).
 Fairbanks, Stories of Mother Earth, 69-75 (petroleum).
 Our country east, 41-5 (gas).
 Clifford, 194-9 (oil).
 Industries of to-day, 90-7 (gas).
 Tarr & McMurry, Second Book, 255 (oil and gas of the Ohio region).
 Dodge, 49-52 (mining centers).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 210 (origin of oil and gas), 219-22 (petroleum and its by-products).
 Redway's Advanced geography, 22 (petroleum and gas).
 Tarr & McMurry, Pennsylvania Supplement, 54-60 (petroleum), 60-1 (gas).
 Adams, 119-21 (petroleum).
 Chisholm, 174-8 (petroleum and its by-products).

Written Work.

1. Tell how petroleum is obtained.
2. Tell how it is marketed.
3. Name some of the by-products of petroleum, and tell how they are obtained.
4. Tell how natural gas is obtained, and mention some of its uses.

3. *Because of these supplies, together with water power, a region of heavy manufactures.*

Bring out the fact that here, as in New England, the falls in the rivers were the original factor in the rise of the manufacturing cities. Associate the "fall line" with the head of navigation, in each of the rivers of the Atlantic Slope, and note the series of manufacturing cities along that line.

Show that the manufacturing enterprises afterward outgrew the capacity of this water power and came to their greater development through the proximity of the great coal fields; and later still petroleum and natural gas were added as sources of power. Finally water power has come to play a new part by its conversion into electric power, as at Niagara Falls. Trolley cars and many great factories are now being run in western New York by this converted Niagara power.

PUPILS' READINGS:

Dodge, 47-9 (manufacturing centers).
 Our country east, 3-8 (harnessing Niagara).
 Eggleston, 97-101 (a legend of Niagara).
 Tarr & McMurry, Second Book, 186 (Niagara power), 158-9 (the fall line).
 Carroll, Third Book, 27 (Niagara power).
 Frye's Advanced geography, 93-4 (the fall line).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 136-8 (Niagara, and waterfalls generally), 252-3 (manufacturing advantages of the Appalachian district).

Herbertson, xxix-xxx (the great manufacturing cities), 113 (the fall line), 125-6 (Pittsburg), 85-8 (resources of the Appalachians).
 Tarr & McMurry, New York Supplement, 47-53 (Buffalo and Niagara), 58-98 (various industries).
 Redway, New Basis, 109.
 Brigham, 50-3, 72 (the fall line), 60, 66 (why Pittsburg is there), 76-104 (an intimate study of the Appalachian plateau).
 Tarr & McMurry, Pennsylvania Supplement, 43-54, 61 (varied industries of Pennsylvania), 65-72 (Pittsburg and other industrial cities).
 Tarr & McMurry, Ohio Supplement, 45-50 (varied industries of Ohio).
 Adams, 125-6 (steel making), 139-46, 105 (our enormous manufacturing).
 Chisholm, 390-1 (steel-making).
 Davis, 127-9 (the fall line), 146-50 (the Appalachian plateau), 188-95 (the making of the Appalachians).
 Gilbert & Brigham, 42, 65 (the fall line), 179-85 (the making of the Appalachians).

Written Work.

1. Describe the various sources of power in the Appalachian region.
2. Show the difference between the old-style water power and Niagara power.
3. Tell why Pittsburg has become a great manufacturing city.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 40-41, 68-71.
 Frye's Advanced geography, 92-4, 96-9, 83-4.
 Tarr & McMurry, Second Book, 157-60, 169-80.
 Tarr & McMurry, Introductory geography, 152-7.

THE COTTON BELT.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Use a blackboard map of the Southern States in conjunction with the text-book map and teach the following locations, together with the oral and written spelling:*

North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Indian Territory, Texas.

Appalachian, Ozark mountains; Mississippi Valley, Atlantic Plain.

Mississippi, Rio Grande rivers; Gulf of Mexico.

Charleston, Savannah, Mobile, New Orleans, Galveston, Memphis, Chattanooga.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. Here is the "Sunny South," with balmy climate and a hospitable people.
2. This is the land of cotton, and has a large negro population.
3. The coasts are flat and sandy; but by the improvement of rivers and harbors several large seaports have been built up.
4. Out of the old, war-stricken South a New South is rising.

* See note on drill, p. 56.

1. *Here is the "Sunny South," with a balmy climate and a hospitable people.*

The particular point to bring out here is the local color—the picturesque and semi-poetic feeling we have for the traditional South, which sets it in a pleasing relief against the workaday, commercial atmosphere of other sections of the country. The pupil should here glimpse a life less strenuous and more contemplative and dreamy than that surrounding him at home; a life lived consistently in a balmy air, amid a luxuriance of verdure and flowers that carries suggestions of the sub-tropical.

PUPILS' READINGS:

- Johannot, *Glimpses*, 244-7 (flamingoes in Florida).
 Carroll, *Third Book*, 159-65 (negroes and the good old times).
 Our country east, 67-72 (the picturesque side of New Orleans), 73-7 (of Galveston), 77-83 (a Southern farm), 83-6 (a home on the gulf), 80-90 (the Florida reefs), 91-5 (Florida wreckers), 96-100 (the Everglades), 100-5 (mangrove trees), 106-10 (pine-apples), 117-20 (a Southern "husking bee"), 121-2 (a Southern village), 123-30 (St. Augustine).
 Carpenter, 119-23 (the rice fields), 125-30 (a turpentine farm), 130-5 (Florida oranges and pineapples), 143-50 (a sugar plantation), 138-43 (New Orleans).
 King, *Fourth Book*, 1-29 (a journey through the South), 17-29 (New Orleans), 31-42 (the lower Mississippi).
 Tarr & McMurry, *Second Book*, 204-5 (the pleasant climate), 205-8 (the Southern forests), 212-17 (rice, sugar, oranges).
 Smith, 128-30 (rice), 121-30 (Virginia and the Carolinas), 130-7 (Georgia and Florida), 135-9 (the gulf coast), 139-40 (vastness of Texas), 145-50 (New Orleans), 150-6 (the lower Mississippi).
 Johannot, *Reader*, 23-7 (the Dismal Swamp), 122-5 (the Natural Bridge).
 Rupert, 13-20 (climate of Florida), 20-2 (Florida oranges), 22-5 (St. Augustine).
 Eggleston, 101-4 (among the alligators), 104-8 (Sergeant Jasper), 147-52 (an adventure at the Natural Bridge).
 Carroll, *Third Book*, 153-6 (North Carolina mountains), 167-9 (in Florida).
 Miln, 1-11 (the sunny South).
 Kirby, *Fireside*, 80-4 (cotton-fields and darkies), 70-3 (Southern swamps), 93-102 (rice).
 Industries of today, 18-26 (Virginia peanuts).
 Chamberlain, 70-6 (rice-fields).

TEACHER'S ADDITIONAL REFERENCE:

- Tarr & McMurry, *Texas Supplement*, 20-4 (climate of Texas), 2 (vastness of Texas), 5-20 (surface and rivers), 26-9 (Texas forests), 91-3 (the story of Texas).
 Shaler, *Story of our continent*, 124-5, 129 (effect of gulf on climate), 150-2 (coral origin of southern Florida), 179 (climate of Florida), 180-81 (generous rainfall of the South), 117-21 (cabbage palms, live oaks, cypresses), 201 (alligators and crocodiles).
 Brigham, 173-6 (the Carolinas), 176-80 (Florida), 182-3 (Louisiana), 186-7 (Texas), 187-92 (the old South), 200-27 (the rivers of the South, in the Civil War).
 Herbertson, 100-3 (mountains of the South), 107-9 (North Carolina), 110-15 (South Carolina), 115-17 (Everglades of Florida), 127 (Savannah), 147-9 (Texas), 139-40 (lower Mississippi), 140-3 (New Orleans).
 Ralph, 1-43 (down the Mississippi by boat), 44-78 (the picturesque in New Orleans), 91-121 (along the Bayou Teche; typical life in the Sunny South), 121-59 (in Sunny Mississippi), 160-205 (the pleasures of Florida), 248-98 (Charleston and the Carolinas in their picturesque side), 299-366 (the southern mountaineers), 373-87 (the plantation negro).

Written Work.

Write a little sketch of the Sunny South and its people, and compare the life there with that which is lived in your own part of the country.

2. *This is the land of cotton and has a large negro population.*

Cotton being far and away the leading product of the South, it is given a unit to itself, together with the aspect of negro labor which goes with it.

PUPILS' READINGS:

- Chamberlain, *Clothed*, 39-56 (the cotton-plantations).
 Tarr & McMurry, *Second Book*, 209-12 (cotton and negroes).
 Carroll, *Third Book*, 159-66 (cotton and negroes).
 Clifford, 35-9 (cotton).
 King, *Fourth Book*, 17-20, 33-5 (cotton-fields).
 Carpenter, 109-18 (the land of cotton).
 Smith, 131-3 (cotton).
 Carver & Pratt, 112-16 (cotton).

Rocheleau, Soil, 89-94 (cotton).
 Herbertson, 127 (cotton).
 Kirby, Fireside, 80-4 (the cotton-fields).
 McMaster, 174-7 (beginnings of the trouble about slavery).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 276-7 (origin of the slave trade).
 Tarr & McMurry, Texas Supplement, 31 (Texas ranks first as a cotton producer), 43-5 (cotton-seed oil).
 Brigham, 70-2, 173-82 (the coastal plain in the cotton region), 173-6 (the Carolinas), 187-90 (the slave times), 193-6 (the cotton industry).
 Adams, 93-7 (cotton industry).
 Chisholm, 103-10 (cotton culture).
 Ralph, 373-87 (the plantation negro).

Written Work.

1. Write a description of raw cotton—how it grows and how it is picked and prepared for shipping.
2. Tell about a cotton plantation, and the life of the negroes.
3. Tell the story of Eli Whitney.

3. *The coasts are flat and sandy, but by the improvement of rivers and harbors several large seaports have been built up.*

This is a physiographic study corresponding to similar ones already given under New England States and Middle Atlantic seaboard. Show the marked difference in the character of the coast here in the South, and bring out the relation of the coasts to commerce. Note the titanic efforts which have converted the shallow lagoon at Galveston into an adequate harbor with an enormous export.

PUPILS' READINGS:

Carpenter, 90-101 (Norfolk), 123-4 (Charleston), 125 (Savannah), 138-43 (New Orleans), 135-8 (the Mississippi jetties), 150-8 (the lower Mississippi).
 King, Fourth Book, 17-29 (New Orleans), 31-42 (the lower Mississippi).
 Tarr & McMurry, Second Book, 203-4 (coasts of the South), 200-4 (the South, physically), 223-7 (New Orleans).
 Tarr & McMurry, Texas Supplement, 3-5 (the harbor at Galveston), 62-4 (Galveston).
 Smith, 130-1 (Savannah), 139 (Galveston), 145-50 (New Orleans).
 Dodge, 76-80 (dunes of the coastal plain), 89-92 (flood plain of the lower Mississippi), 94-6 (the Mississippi delta), 105-8 (lagoons and bars).
 Our country east, 73-7 (Galveston), 67-72 (New Orleans).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, First Book in geology, 18-19 (oxbows of the Mississippi).
 Shaler, Story of our continent, 150-2 (coral origin of Southern Florida), 84-7 (the coasts of the Southern States).
 Brigham, 70-2, 173-82 (the coastal plain), 200-27 (rivers of the south), 184-6 (jetties of the Mississippi).
 Herbertson, 127 (Savannah), 130-40 (the lower Mississippi), 140-3 (New Orleans), xxxi (the Southern cities summarized).
 Dryer, 74-9 (the lower Mississippi, oxbows, delta, levees, etc.), 229-38 (the making of beaches and bars, the coastal plain).
 Davis, 129-32 (the shallow harbors explained), 117-26, 132-6 (coastal plains), 292-5 (the Mississippi delta), 350-4 (the making of sandbars and inlets).
 Shaler, Aspects, 150-6 (flood-plain and oxbows of the Mississippi).
 Gilbert & Brigham, 45-56 (flood-plain, delta, oxbows, floods), 10-11, 63-5 (rising and sinking coasts), 66-9 (the Mississippi system), 109-17 (the movements of sand; sand-dunes), 151-4 (the coastal plain), 306-15 (forms of the Southern coastline).
 Adams, 160 (New Orleans as a port).
 Ralph, 79-89 (New Orleans as a port).

Written Work.

1. Compare the coasts of the South with those of the northern seaboard.
2. Explain how poor harbors have been improved in the South.
3. Name the important southern ports. Give a description of one of them as to its commerce.
4. Tell about the lower Mississippi; what obstacles does it offer to commerce and a settlement of the vicinity, and how have these been overcome?

4. *Out of the old, war-stricken South a New South is rising.*

In the old days the South sent all of her cotton north, either to England or New England, where the mills converted it into cloth. Thus the major part of the profits of the cotton industry were lost to her. More recently, however, mills have been rapidly multiplying in the South, so that she is in a fair way of working up her raw cotton into the finished product, in this way taking her place in the world's markets as a self-dependent and self-sustaining commonwealth. Also the iron and coal deposits of the southern Appalachians are now being rapidly developed, accelerating the growth of such cities as Roanoke, Birmingham, and Chattanooga. This robust spirit of industrial and commercial activity is gradually displacing the dreamy traditions dealt with in our first unit.

PUPILS' READINGS:

Tarr & McMurry, Second Book, 218-19 (resources of the South), 219-23 (the growing South), 158-9 (the fall line), 227-30 (inland cities).
 Frye's Advanced geography, 93-4 (the fall line).
 Rupert, 9-13 (Chattanooga and Birmingham).
 King, Fourth Book, 47-9 (busy places in the South).

TEACHER'S ADDITIONAL REFERENCE:

Herbertson, 5-xxxi (the region summarized), 103-4 (Chattanooga), 113 (the fall line), 114-15 (the New South).
 Redway, New basis, 111-13.
 Brigham, 64 (southern resources), 50-3, 72 (the fall line), 103-4 (conditions for the New South), 192-9 (the New South).
 Adams, 54 (the fall line), 97 (growing South).
 Ralph, 79-89 (the business aspect of New Orleans), 206-47 (the industrial South).
 Davis, 127-9 (the fall line), Gilbert & Brigham, 42, 65 (the fall line).

Written Work.

1. Tell of the old conditions in the South, before her era of progress began.
2. Show how these conditions have changed.
3. Sum up the resources of the South.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 78-83, 58.
 Frye's Advanced geography, 76, 83, 98-106.
 Tarr & McMurry, Second Book, 200-231.
 Tarr & McMurry, Introductory geography, 159-66.

THE PRAIRIE REGION.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Use a blackboard map of the states named below, together with the text-book map of the region, and teach the following locations.* Teach also the oral and written spelling:

Ohio, Indiana, Kentucky, Illinois, Wisconsin; Missouri, Iowa, Minnesota; Kansas, Nebraska, North and South Dakota.

Mississippi, Ohio, Missouri Rivers; Mammoth Cave.

Cincinnati, St. Louis, Kansas City; Minneapolis, St. Paul, Omaha.

*See note on drills, p. 50.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. Here is a vast lowland, chiefly prairies, devoted to agriculture; the great products are wheat and corn. 2. Most of the people live on farms, or in towns; but several great cities have grown up along the rivers. 3. The Mammoth Cave is a famous feature of Kentucky.

There is a vast lowland, chiefly prairies, devoted to agriculture; the great products are wheat and corn.

Between this region, where the great business is in wheat and corn, and the more dense populations are concerned in the prairies are the granary, not the world. We are one of the great bread-eaters. Much of the bread eaten in the world is made in our Mississippi Valley.

Contrast these vast, flat farms, with a few of the small truck farms of the eastern seaboard. An old-fashioned plow constitute a farm.

Keep to the front, in this unit, that here is the greatest wheat area in the world, although other products should be noted.

PUPILS' READINGS:

- Chamberlain, Fed., 7-17 (the story of wheat), 18-31 (the story of meat), 32-43 (story of the markets), 44-53 (butter and cheese).
 Fairbanks, Home geography, 180-93 (farming), 194-8 (stock-raising).
 Johnson, Reader, 71-4 (tornado in Ohio).
 Talks about animals, 177-85 (prairie dogs and gophers).
 Beal, 11-30 (about farming), 30-6 (flour-milling), 36-9 (corn, maize), 39-53 (bread, crackers, cakes), 56-8 (peas and beans), 59-66 (garden truck), 66-87 (the dairy: milk, butter, cheese), 91-113 (mutton, pork, beef), 114-19 (poultry).
 Rochelleau, 124-49 (Indian corn), 150-78 (wheat and flour).
 Bradish, 72-7 (hay), 82-8 (harvesting), 26-7, 89-95 (corn), 147-70 (wheat and flour).
 Carver & Pratt, 104-8 (corn), 108-12 (wheat).
 Carroll, Third Book, 76-9 (wheat), 81-5 (the meat trade).
 Smith, 115-17 (the blue-grass country), 150-70 (the upper valley), 128-9 (Minnesota), 170-8 (the western prairies), 109-14 (the eastern prairies).
 Rupert, 26-9 (vastness of the Mississippi Valley), 45 (the blue-grass country), 45-52 (the rolling prairie), 39-45 (the great flour-mills), 59-66 (opening Oklahoma).
 Tarr & McMurtry, Second Book, 234-6 (prairies), 238-42 (a prairie farm), 242 (blue-grass Kentucky), 243-5 (corn), 245-7 (the great wheat-farms), 265 (wheat-elevators), 271-3 (great flour-mills).
 Carpenter, 159-64 (corn), 164-71 (wheat), 168-71 (grain-elevators and flour-mills).
 Dodge, 36-49 (agricultural centers), 137-41 (plains), 201-5 (kinds of soil).

TEACHER'S ADDITIONAL REFERENCE:

- Shaler, Story of our Continent, 121-3, 180-90 (the prairies), 131-2 (tornadoes), 201-2 (the former buffalo).
 Herbertson, xxxii (the region summarized), xxxiii (its products), 128-9 (Minnesota), 129-32 (Mississippi Valley), 134-6 (Missouri).
 Redway, New basis, 113-16.
 Bingham, 100-2 (blue grass Kentucky), 142 (extent of the prairies), 143-6, 155-62 (historical sketch of the prairie region), 148-51 (the prairies described), 151-4 (the prairies in their making), 174 (prairie climate), 155 (prairie coal).
 Redway, Advanced geography, 37-8 (agriculture and the cereals), 58 (wheat and corn notes).
 Frye's, Advanced geography, 77-8 (wheat and corn notes).
 Tarr & McMurtry, Ohio Supplement, 37-41 (agriculture in Ohio).
 Adams, 17-18 (the prairies as homes for men), 57-73, 79-82 (cereals and other farm products).
 Cushman, 72-66 (wheat), 67-9 (corn), 70-5 (varied products).
 Shaler, Aspects, 100-99 (origin and nature of soils).
 Gilbert & Bingham, 94-6 (origin and nature of soils), 160-7, 323-4 (the making of the prairie), 146-50 (foods).

Written Work.

1. Locate the prairie region and describe the prairies.
2. Name the chief products, and describe one of the great farms.
3. Compare the prairie farms with a typical eastern farm, say in New England.

2. Most of the people live on farms or in towns; but several great cities have grown up along the rivers.

Contrast this western community, scattered in single farms and small towns over vast, flat expanses, with that of the eastern seaboard, where an enormous population is closely huddled in great cities, piled vertically, sometimes for twenty stories, and where a wild-flower is a curiosity. Note, however, the several large cities which have grown up on lake or river, as the centers of commerce and transportation for this region. Consider the river cities more particularly here, as the lake cities are dealt with in the next region studied. Let the fact remain that the typical life of the region is agricultural.

PUPILS' READINGS:

- Carpenter, 156-8 (Mississippi as a waterway).
 Smith, 96-101 (the Ohio River and its cities), 155-63 (cities and people along the upper Mississippi and Missouri), 157-8 (St. Louis), 164-70 (Minnesota and Dakota).
 King, Fourth Book, 43-7 (St. Louis).
 Tarr & McMurry, Second Book, 269-76 (the cities along the great rivers), 238-41 (people of the farms), 236-8 (Mississippi as a waterway).
 Our country west, 195-6 (prairie schooners), 197-202 (prairie signs), 203-7 (life in Dakota), 209-11 (the coyote), 212-16 (hoy life on the prairie).
 Rocheleau, 154-8 (life on the great farms).
 Rupert, 49-52 (life in Iowa), 59-69 (the opening of Oklahoma), 39-45 (Minneapolis and her flour-mills).
 Our country east, 28-30 (winter sport in Minnesota).
 McMaster, 169-70 (the rivers as old-time waterways).
 Dodge, 30-2 (centers of life).

TEACHER'S ADDITIONAL REFERENCE:

- Shaler, Story of our continent, 111-12 (Mississippi as a waterway).
 Herbertson, 136-9 (Louisville), 134-6 (Missouri towns and farms), 129-32 (Mississippi as a waterway).
 Brigham, 165-72 (the people and cities of the prairies).
 Tarr & McMurry, Ohio Supplement, 73-85 (cities of Ohio).
 Adams, 22-6 (the sites of cities), 151-2 (river cities).
 Chisholm, 382-3 (the Mississippi as a waterway), 395-6 (the cities).
 Ralph, 388-412 (St. Louis intimately described).
 Dryer, 68-74 (the Mississippi and its branches).
 Shaler, Aspects, 186-8 (floods of the Mississippi).
 Gilbert & Brigham, 66-9 (the Mississippi system).

Written Work.

1. Compare life on the prairies with life along the Atlantic seaboard.
 2. What part do the rivers play in the commerce and industry of the prairie region?
 3. Name the important cities of this region and give a little description of one of them.
- 3. The Mammoth Cave is a famous feature of Kentucky.*

This great cave is only a larger example of the caverns occurring in all limestone regions. It is worth while, therefore, besides exhibiting its picturesque aspect, to show its relationship to caverns and natural bridges generally. Readings have therefore been cited on the Natural Bridge of Virginia, although it lies in another region.

PUPILS' READINGS:

Our country east, 57-64 (the Mammoth Cave).
 Johnnot, Reader, 122-5 (Natural Bridge), 125-36 (Mammoth Cave).
 Tarr & McMurry, Second Book, 242-3 (Mammoth Cave).
 Smith, 118-20 (Mammoth Cave).
 Eggleston, 147-52 (an adventure at the Natural Bridge).
 Shaler, First Book in geology, 74-87 (the Mammoth Cave explained).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 140-5 (Mammoth Cave, and caverns generally).
 Shaler, Aspects, 98-123 (the making of caverns).
 Gilbert & Brigham, 98-100 (caverns and cavern life).
 Dryer, 102-5 (how caverns are formed).
 Redway's Advanced geography, 14-15 (caverns explained).
 Herbertson, 104-7 (Mammoth Cave).

Written Work.

1. Describe the natural process by which most caves are formed.
2. Tell how natural bridges are formed.
3. Describe the Mammoth Cave.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 14, 37-8, 66-8, 72-7.
 Frye's Advanced geography, 106-14, 8, 77-81.
 Tarr & McMurry, Second Book, 234-80.
 Tarr & McMurry, Introductory geography, 167-75.

THE GREAT LAKE REGION.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Draw a blackboard map of the Great Lakes and the country immediately tributary. Use this in conjunction with the text-book map of this region and teach the following locations, together with the oral and written spelling: *

Minnesota, Wisconsin, Michigan, Indiana, Ohio, Pennsylvania, New York, Province of Ontario.

Chicago, Cleveland, Buffalo; Duluth, Milwaukee, Detroit.

Lakes Superior, Michigan, Huron, Erie, Ontario; St. Lawrence River; "Soo" Canal, Erie Canal, Welland Canal; Niagara Falls.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. The Lakes are inland seas of fresh water, with great commercial ports; and their waters make Niagara Falls. 2. The Lake Superior region has our main supply of white pine; here, too, are the greatest known deposits of iron and copper; and westward of the Lakes lies the great wheat region.

1. The Lakes are inland seas of fresh water, with great commercial ports; and their waters make Niagara Falls.

Bring out the vastness of the Great Lakes. Steamers travel their length, with no land in sight for many hours at a time. Note the enormous traffic

*See note on drills, p. 50.

on these lakes. The "Soo" Canal and the Detroit River each pass about three times as much freight as is sent through the Suez Canal. More tons of freight pass the "Soo" than New York harbor receives from its combined ocean traffic. Note, however, that this freight of the Lakes is limited to a few varieties of heavy raw products. The eastward bound boats carry wheat (or flour), white pine lumber, iron, and copper. The cargoes traveling the other way are of somewhat greater variety, but their chief bulk is coal.

PUPILS' READINGS:

- Carpenter, 172-9, 190-5 (the Great Lakes as a waterway), 172 (Duluth), 172 (whaleback steamers), 172-4 (the enormous traffic), 176-9 (the "Soo"), 190-5 (the lake cities), 195-202 (Niagara), 193-4 (Erie Canal).
 Tarr & McMurry, Second Book, 267-8 (Chicago Drainage Canal), 261-9 (the lake ports).
 Our country east, 16-19 (winter fishing on Lake Huron), 9-15 (St. Clair Tunnel), 3-8 (harnessing Niagara), 31-4 (Lake Superior).
 Smith, 80-96 (a cruise from port to port on the Great Lakes), 102-9 (Chicago), 83-7 (Niagara).
 Eggleston, 97-101 (a legend of Niagara).
 Rupert, 29-36 (Lake Superior and its ports), 36-9 (Chicago).
 Carroll, Third Book, 63-74 (the Great Lakes as a waterway), 66-72 (the "Soo" Canal), 23-7 (Niagara).
 Chamberlain, Fed, 24-31 (the Chicago stock yards).
 Shaler, First Book in geology, 117-18 (Niagara in its making), 125-9 (the making of the lakes).
 Dodge, 30-2 (centers of life), 33-6 (commercial centers), 113-16 (the character of lakes), 127-32 (how moraines are made), 132-6 (work of the great ice-sheet).

TEACHER'S ADDITIONAL REFERENCE:

- Shaler, Story of our continent, 105-7 (oddities of the St. Lawrence basin).
 Tarr & McMurry, New York Supplement, 47-53 (Buffalo and Niagara).
 Herbertson, 65-8 (Niagara Falls), 65 (the "Soo" Canal), 95-9 (the Mohawk waterway to New York), 118 (Milwaukee), 130-1 (the Great Lakes as a waterway), 117, 132-4 (Chicago), xxxi (the lake ports).
 Brigham, 105-8 (the Great Lakes, historically), 108-11 (economic effect of Niagara), 111-26 (the lakes in their making), 27-41 (the Great Lakes as a waterway), 140-1 (the Chicago Drainage Canal).
 Redway's Advanced geography, 42-3 (great cities).
 Tarr & McMurry, Ohio Supplement, 12-14 (Lake Erie), 75-80 (Cleveland).
 Adams, 38-45 (water transportation), 152-4 (the lakes as a waterway).
 Chisholm, 372-3 (the Great Lakes and their canals).
 Dryer, 92-5 (the making of the lakes), 95-101 (Niagara River and falls).
 Davis, 339-44 (the making of the lakes).
 Shaler, Aspects, 161-3 (the making of Niagara).
 Gilbert & Brigham, 36 (the low divides of the St. Lawrence basin), 38-42 (Niagara Falls), 60-2 (lakes), 69-70 (the Great Lakes as a waterway), 132-50 (the glacial period, and the lakes), 155-8 (the Great Lakes basin).

Note that the various canals were made necessary by rapids or falls; devote a passing study to the working of locks.

Written Work.

1. Give some facts that show the size of the Great Lakes.
2. Make some comparisons to show the enormous amount of the freight traffic.
3. Name the chief articles of freight carried east, and one that is carried west.
4. Why are the canals necessary?
5. Why are locks necessary?
6. Tell how a vessel goes through the locks.
7. Locate and describe Niagara Falls.
8. Name the principal lake ports and describe one of them.

2. *The Lake Superior region has our main supply of white pine; here, too, are the greatest known deposits of iron and copper; and westward of the Lakes lies the great wheat region.*

The wheat region has already been studied, and needs now to be merely included as one of the contributory regions to the lake commerce. Localize the four great product areas in your blackboard sketch. (See maps in Adams' Com. Geog.) Associate Lake Superior, particularly, with the country's supply of iron and steel. Show that the Michigan-Superior country has superseded Maine and other regions as a source of white pine. Discuss the possibility of exhausting our lumber supply.

PUPILS' READINGS:

Chase & Clow, Vol. I, 48-52 (copper, in general), 67-90 (iron and steel), 121-5 (lumber).
 Parker, 253-63 (about copper).
 Rupert, 30-31 (the iron country).
 Carroll, Third Book, 75 (copper mines), 79-81 (lumber).
 Tarr & McMurry, Second Book, 254-5 (building stone), 256-8 (greatest iron region in the world), 258-60 (Lake Superior copper), 260-1 (other minerals of the lake region), 127-32 (lumber), 252-4 (Great Lake lumber region).
 Carpenter, 179-82 (Lake Superior iron), 182-4 (copper), 184-9 (lumber).
 Bradish, 39-49 (a logging-camp).
 Industries of today, 59-67 (lumbering).
 Dodge, 43-6 (lumbering centers).
 Our country east, 20-7 (dog sledging in the pineries), 233-7 (lumber).
 Rocheleau, Products, 9-36, 46-50 (lumbering).

TEACHER'S ADDITIONAL REFERENCE:

Herbertson, 50-55 (a typical lumber-camp), 59-62 (a forest fire).
 Tarr & McMurry, New England Supplement, 38-42 (lumber and pulp).
 Redway, New basis, 109-10.
 Adams, 107-12 (lumber trade of the United States).
 Chisholm, 389-90 (Lake Superior iron).
 Gilbert & Brigham, 319-23 (forests of North America).
 Oxley, 197-219 (from forest to floor).

Written Work.

1. Describe a logging camp.
2. Tell how iron is obtained.
3. Tell how copper is obtained.
4. Explain the difference between iron and steel.
5. Make a sketch map showing the iron, copper, lumber, and wheat regions tributary to the Great Lakes.

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 39, 42-3, 66-8, 73-7.
 Frye's Advanced geography, 78, 83-4, 106-10.
 Tarr & McMurry, Second Book, 252-69.
 Tarr & McMurry, Introductory geography, 167-75.

THE GRAZING REGION.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Draw a blackboard map of the states named below, and using it in conjunction with the text-book map of the region, teach the following locations.*

Teach also the oral and written spelling:

Texas, Oklahoma, Indian Territory, Kansas, Nebraska, New Mexico, Colorado, Wyoming, Montana.

Omaha, Kansas City; Missouri River; Rocky Mountains.

*See note on drills, p. 50.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. The east slope of the Rocky Mountain Plateau is too dry for farming, but vast herds of cattle are raised. 2. Here lives a special type of man, the cowboy.

1. The east slope of the Rocky Mountain Plateau is too dry for farming, but vast herds of cattle are raised.

Upward of twenty inches of rainfall is needed for any sort of agriculture. The country between the 100th meridian and the Rocky Mountains receives less than this, and is thus debarred to the farmer. Enough rain falls, however, to furnish food for countless thousands of cattle and sheep; and so this great region is given over to herding.

PUPILS' READINGS:

- Chamberlain, Clothed, 59-71 (on a Montana sheep-ranch).
 Smith, 140-5 (a Texas cattle-ranch).
 Rupert, 7-8 (the vast cattle country).
 Tarr & McMurry, Second Book, 217-18 (the Texas grazing region), 248-52 (the cattle on the plains), 265-6 (stockyards at Chicago), 302-5 (Montana sheep-ranches), 297-8 (the arid country).
 Fairbanks, Home geography, 194-7 (stock-raising).
 Chamberlain, Fed, 18-24 (the cattle country), 25-31 (Chicago stockyards).
 Carpenter, 258 (sheepherders and prairie-dogs).
 King, Fifth Book, 1-12 (life on the cattle-ranches).
 Our country west, 217-21 (ranch life), 228-32 (the great cattle trails), 233-5 (language of cattle brands), 236-9 (breaking a broncho), 240-3 (wild horses), 195-7 (prairie schooners), 197-203 (prairie signs), 203-9 (herding in Dakota), 209-12 (the hated coyote), 212-16 (a boy on the prairie).
 Industries of today, 12-18 (ranch life).
 Carver & Pratt, 129-32 (the grazing lands).
 Johnnot, Reader, 226-33 (the cattle lands of Argentina: descriptive also of similar scenes in the United States).
 Dodge, 40-3 (grazing centers).

TEACHER'S ADDITIONAL REFERENCE:

- Shaler, Story of our continent, 171-3 (the arid region).
 Herbertson, 143-4 (Nebraska cattle), 144-5 (the Platte River), 146-7 (the "Bad Lands").
 Tarr & McMurry, Texas Supplement, 34-6 (great Texas cattle-ranches).
 Redway, New basis, 116-17.
 Brigham, 230-54 (the arid and semi-arid regions of the west), 238-9 (the Staked Plain of Texas), 239-54 (irrigation).
 Channing, Students' history United States, 8-11.
 Adams, 76-81 (cattle industry).
 Davis, 45-7.
 Dryer, 332-4.
 Gilbert & Brigham, 327-8 (the grazing region).

Written Work.

Locate the grazing region and tell why it is located there.

2. Here lives a special type of man, the cowboy.

Show how the region makes the man. The New Yorker is a well-groomed business man. The people of Newfoundland are fishermen. The men of the mountains are miners. Here in the grazing lands the arid country and its one great occupation has produced a type unlike any other—the American cowboy.

PUPILS' READINGS:

- Carroll, Third Book, 139-41 (cowboy life), 81-5 (stockyards), 150-2 (Indian cowboys).
 Fairbanks, Home geography, 194-7 (stock-raising).
 Rupert, 73-6 (cowboy life).

Chamberlain, Fed, 18-24 (cowboys and cattle).
 King, Fifth Book, 1-12 (cowboy life).
 Our country west, 222-32 (life of the cowboy), 232-5 (language of cattle brands), 236-9 (breaking a broncho), 240-3 (chasing wild horses).
 Wood, 3-7 (cowboys of Argentina).
 Jhonnot, 220-33 (Argentina cowboys).
 Carpenter, 258 (sheepherders).
 Industries of today, 12-18 (ranch life).
 Tarr & McMurry, Second Book, 217-18, 250-2 (life of the cowboy).

TEACHER'S ADDITIONAL REFERENCE:

Hough, Story of the cowboy (an intimate and readable description of the cowboy, his work, and his ways of living).
 Lummis, A New Mexico David (a good piece of local color).
 Redway, New basis, 68.

Written Work.

1. Describe a round-up.
2. Tell about the language of cattle brands.
3. Tell how the cattle are sent to market.
4. Where are the great stockyards, and what part do they play in the cattle industry?

Text-book Review.

The pertaining material in the text-book is now to be used as a summary and review.

Redway's Advanced geography, 38, 75-7, 83-6, 58.
 Frye's Advanced geography, 80-1, 111-12.
 Tarr & McMurry, Second Book, 248-52, 273-5.
 Tarr & McMurry, Introductory geography, 167-75.

THE PLATEAU REGION.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Using a blackboard map of the states named below, together with the text-book map of the region, teach the following locative features.* Teach also the oral and written spelling:

Rocky Mountains, Sierra Nevada Mountains, Pike's Peak.

Great Basin, Yellowstone Park, Great Salt Lake, Colorado River.

Montana, Idaho, Wyoming, Colorado, Utah, Nevada, New Mexico, Arizona.

Denver, Salt Lake City.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. Here is a succession of elevated deserts, surrounded and traversed by rugged mountain chains. 2. The region is thinly peopled by miners, cowboys, and wandering Indian tribes; the cities are few and far apart. 3. This plateau is one of the great gold and silver regions of the world.

*See note on drills, p. 50.

1. *Here is a succession of elevated deserts, surrounded and traversed by rugged mountain chains.*

Draw again the middle profile in Fig. 6 and lead the pupil to conceive this region as a continuous elevated mass between the Rockies and the Sierras. Note the altitude, here and there, not for memorizing but for comparison. Great Salt Lake is 4,200 feet above the sea; Denver is 5,200 (about a mile). These may be regarded as indicating the average of the plateau altitudes. Mt. Whitney, in the Sierras, is the highest peak—nearly 15,000 feet. Pike's Peak and Long's Peak, in Colorado, are over 14,000 feet. Compare these altitudes with those in Mexico, p. 69, and in Alaska, p. 91.

Trace the confines of the Great Basin by its water partings. It extends east and west from the Sierras to the Wahsatch, and north and south from the Columbia divide to that of the Colorado. The Great Basin sends no water to the sea.

Locate the Great American Desert, west of Salt Lake, and the Mojave and Colorado Deserts, in southeastern California. Let the pupil feel that these are merely local names for one vast arid region.

Teach why desert lakes are salt, and use Great Salt Lake as a type. For a long period of time it has been "drying up." Tell about the old beach lines halfway up the mountains surrounding the lake.

Go over the causes for this land of deserts: 1. The Sierras intercept the moisture-bearing winds ("prevailing westerlies" or return trades) and California gets the benefit, while Nevada remains one of the most absolute deserts in the world. (p. 77.) 2. That great rain distributor, the cyclone, seems rarely to develop upon the plateau; and if it did, the lay of land and water is such that no rain could result (see cyclone rains, p. 75). Here and there on the plateau the mountains rise high enough to be rain (or snow) producers. The Colorado receives practically all of its waters from a few of these high locations. Like other desert rivers, it loses, instead of gains, as it flows toward the sea.

Devote much reading and discussion to the scenic aspect of the region, for which many readings are cited below.

PUPILS' READINGS:

- Johannot, Reader, 155-8, 352-60 (geysers of the Yellowstone), 375-82 (Colorado scenery), 20-23 (the Great Basin).
 Tarr & McMurry, Introductory geography, 17-27 (the Rocky Mountain plateau).
 Eggleston, 158-71 (Rocky Mountain stories), 178-82 (Colorado Canyon).
 King, Second Book, 232-50 (Canadian Rockies).
 Dodge, 141-3 (plateaus), 144-53 (mountains), 154-7 (volcanoes and lava), 164 (geysers).
 Kirby, Fireside, 264-96 (short readings about deserts).
 Tarr & McMurry, Third Book, 57-9, 419-21 (deserts in general).
 Hall, 178-80 (the deserts).
 Stockton, 222-4 (mirage).
 Shaler, First Book in geology, 125-6 (salt lakes).
 Tarr & McMurry, Second Book, 283-8 (the plateau), 297-8 (irrigation), 299 (the Utah region), 286-7 (the Great Basin), 308-10 (Yellowstone Park), 310 (Colorado Canyon).
 Our country west, 67-121 (various Rocky Mountain sketches), 139-43 (the Sierras), 161-7 (the Colorado Canyon), 149-53 (Death Valley), 153-61 (Nevada, the sagebrush state), 173-8 (irrigation), 249-51 (cactus).
 Fairbanks, Stories of Mother Earth, 62-7 (Mohave Desert), 77-82 (the borax country), 83-8 (Salton Lake region), 89-95 (Mono Lake), 96-102 (Colorado River).
 Fairbanks, Home geography, 97-107, 172-6 (mountains), 226-8 (the desert).
 Tarr & McMurry, California Supplement, 92-6 (the Great Basin), 97-8 (borax and salt).
 Jordan, 83-90 (the coyote of the desert).
 Dodge, 191-2 (causes of the desert), 207-8 (irrigation).

- Rupert, 52-3 (on Pike's Peak), 54-6 (Great Salt Lake), 76-9 (mountain-climbing).
 King, Fifth Book, 14-32 (Colorado Rockies), 112-23 (hunting in the Rockies), 191-3 (irrigation), 230-42 (the southwestern deserts).
 Carpenter, 235-41, 256-8 (the Colorado Rockies), 263-4 (Great Salt Lake), 262-3 (irrigation), 284-9 (falls and geysers of the Yellowstone).
 Smith, 183-7 (the Yellowstone geysers), 188-92 (the deserts), 193-4 (Great Salt Lake).
 Carroll, Third Book, 144-6 (Yellowstone Park), 147-9 (Great Salt Lake).

TEACHERS' ADDITIONAL REFERENCE:

- Shaler, Story of our continent, 146-8 (Great Salt Lake), 172-3 (the arid country), 191-2 (the making of an alkali desert), 110, 138-40 (Colorado Canyon, and canyons generally), 90-3 (the Rocky Mountain plateau).
 Herbertson, 180-4 (the Great Basin), 189-91 (Mojave Desert), 1-2 (our scenery summarized), 153-62 (the Rockies), 162-7 (the Cascades), 74-7 (the Canadian Rockies), 170-1 (the great divide), 171-80 (the Yellowstone geysers), 184-7 (the Colorado plateau), 187-9 (Colorado Canyon), 180-2 (the Wahsatch Mountains).
 Redway, New basis, 68, 70, 77-8, 89, 93.
 Brigham, 230-54 (the arid western plateaus; irrigation discussed), 255-85 (the Rockies described), 245-8 (Great Salt Lake and the Great Basin).
 Ballou, Footprints, 3-4.
 Stoddard, California lecture, 7-20 (Mojave Desert).
 Stoddard, Canada lecture, 182-228 (the splendid Canadian Rockies).
 Stoddard, Yellowstone Park lecture.
 Stoddard, Colorado Canyon lecture.
 Redway's Advanced geography, 15 (Salt Lake explained), 17 (Colorado Canyon explained).
 Lummis, Strange corners, 28-42 (the southwestern deserts), 30-42 (the Great American Desert), 183-97 (the lava-flows and arid vastnesses of the great plateau), 8-19 (Colorado Canyon intimately described), 20-7 (petrified forest of Arizona), 142-60 (great natural bridges of Arizona).
 Tarr & McMurry, Utah Supplement, 2-8 (the making of the Great Basin), 22-7 (the Great Basin region), 56-63 (Great Salt Lake clearly described), 83-5 (irrigation), 68-78 (plant life of the desert), 80-2 (animals of the desert), 19-20 (snowslides), 32-4 (Utah scenery), 65-7 (climate of the Great Basin), 27, 31, etc. (these summaries in italics constitute a good description of the desert plateau).
 Tarr & McMurry, California Supplement, 19-20 (plants of the desert), 81-2 (irrigation).
 Adams, 7, 15-16.
 Dryer, 332-4, 343-7 (plateau climate), 304-6, 318-19 (Great Basin and Salt Lake), 305-7 (salt lakes in general), 319-24 (plants and animals of the deserts), 89-91 (the Colorado River and its canyon), 105-7 (the making of geysers), 178-89 (the making of the Rocky Mountain plateau), 210-16, 221-2 (the "bad lands" and other curious forms of the plateau, in their making).
 Shaler, Aspects, 193-6 (irrigation).
 Gilbert & Brigham, 158-60 (the basin of Great Salt Lake), 231-2 (rainfall of the arid plateau), 28-32 (gorges and canyons), 38-9 (falls), 70-1 (Colorado River), 89-93 (scenic forms in the arid plateau), 101-3 (hot springs and geysers of the Yellowstone), 119-28 (inland glaciers), 168-75 (the Colorado Rockies), 176-9 (the Rocky Mountain highland in general), 189-92 (climate and life in the Rockies).
 Davis, 141-6 (plateaus, and the development of canyons), 161-74 (how the mountains were made), 175-6 (mountains as climate-makers), 178-9 (avalanches), 301-3 (desert rivers), 303-4 (the Bad Lands).

Written Work.

There is too much work here for a single lesson. The teacher will have to divide it up or else select.

1. Describe the surface of the Rocky Mountain highlands.
2. Describe the climate.
3. Tell what you can of the causes of this climate.
4. Describe Great Salt Lake, and tell why it is salt.
5. Describe the Colorado Canyon.
6. Describe the geysers of the Yellowstone.
7. Locate and describe the Great Basin.
8. Describe Death Valley.
9. Write what you can about Rocky Mountain scenery.

2. *The region is thinly peopled by miners, cowboys, and wandering Indian tribes; the cities are few and far apart.*

Contrast these wild, lonely, and unstable aspects of life with those of the East, previously studied.

PUPILS' READINGS:

- Johnston, Reader, 119-25 (the Cliff Dwellers).
 Rupert, 70-1 (Denver), 90-2 (Leadville).
 Tarr & McMurry, Second Book, 306-8 (Indians of the deserts), 312 (cities of the plateau), 297-8 (irrigation).

- McMaster, 22-3 (the Pueblo Indians), 188-9 (the coming of the Mormons), 220-7 (rise of the new West).
 Smith, 179-83 (people of the plateau).
 Carroll, Third Book, 119-21 (the Cliff Dwellers).
 Our country west, 167-73 (cave dwellers of Arizona), 178-83 (old Santa Fe), 183-9 (people of New Mexico), 189-92 (adobe houses), 173-8 (irrigation).
 Miln, 87-111 (Indian customs and Indian babies).
 Kirby, Fireside, 51-69 (Indian stories), 264-96 (desert types).
 Carpenter, 259-61 (Salt Lake City and the Mormons), 262-3 (irrigation), 290-7 (Indian tribes of the plateau), 295-7 (pueblo builders).
 King, Fifth Book, 191-3 (irrigation).
 Dodge, 215-16 (cliff dwellers), 216-17 (pueblo builders), 207-8 (irrigation).

TEACHER'S ADDITIONAL REFERENCE:

- Lummis, Strange corners, 43-121 (Indians of the desert), 43-57 (Moqui snake-dance), 58-65 (the Navajos), 66-74, 90-3 (the strange inhabitants of New Mexico), 75-89 (Indian magicians and medicine-men), 94-121, 134-41 (pueblos and cliff dwellings), 108-207 (the Navajo blanket-makers), 208-18 (Indian hunters), 219-27 (the Indian idea of education), 228-61 (strange customs of the desert Indians), 262-70 (Spanish ideals in New Mexico).
 Dryer, 224-6 (influence of mountains upon life).
 Tarr & McMurry, Utah Supplement, 83-5 (irrigation).
 Tarr & McMurry, California Supplement, 81-2 (irrigation).
 Shaler, Aspects, 193-6 (irrigation).
 Herbertson, 191-3 (Navajo Indians).
 Brigham, 275-9 (historical sketch of the Rocky Mountain region).
 Redway, 34 (sparse population).

Written Work.

1. What various kinds of people make up the population of the Rocky Mountain Plateau?
 2. Describe the life of the Indians.
 3. Tell about the pueblo builders.
 4. Tell about the Cliff Dwellers.
 5. What is the purpose of irrigation, and how is it carried on?
3. *Here is one of the great gold and silver regions of the world.*

There are three general methods of mining gold. Placer mining consists in merely washing the loose gravel of stream-beds, by means of sluices, "cradles," or other devices, and securing the free gold, in various-sized particles ranging from "colors," or tiny flakes, to nuggets of great value. Hydraulic mining is this placer work carried along on a gigantic scale. Whole gravel hills—the deposit of ancient streams—are rapidly torn down by directing resistless streams of water against them from powerful nozzles. The gravel and water thus mixed are conducted through sluices in which the free gold is collected by the aid of quicksilver. The third method is quartz mining, in which gold-bearing rock is blasted out and passed through a series of crushing machines. It finally becomes an impalpable mud, and this is flowed over quicksilver-covered plates which gather the pulverized gold and let the mud pass on. With some kinds of gold-bearing rock other more intricate processes must be used.

Associate the plateau region with this third kind of mining.

PUPILS' READINGS:

- Chase & Clow, 37-44 (gold), 45-7 (silver).
 Fairbanks, Stories of Mother Earth, 161-8 (down a gold mine), 177-83 (story of a nugget).
 King, Fifth Book, 38-50 (mining in the plateau region), 38-41 (silver-mining).
 Smith, 194-5 (silver of Nevada).
 Tarr & McMurry, Second Book, 285-6 (gold veins), 288-90 (placer and hydraulic mining), 290-3 (quartz-mining).
 Wood, 15-21 (deep in a mine).
 Fairbanks, Home geography, 116-19 (gold and silver mining).
 Parker, 207-26 (gold in general), 237-41 (a silver mine).
 Rocheleau, Minerals, 163-8, 187-92 (gold and silver in general), 177-80 (placer-mining), 180-3 (hydraulic mining), 183-6 (quartz-mining).

Carroll, Third Book, 133-9 (gold-mining).

Chamberlain, Clothed, 222-5 (gold).

Carpenter, 239-41 (Rocky Mountain gold), 241-8 (a Colorado gold mine), 248-55 (a Utah silver mine).

Dodge, 49-52 (mining centers).

TEACHER'S ADDITIONAL REFERENCE:

Shaler, Story of our continent, 208 (the varied products of mines), 231-2 (silver and copper).

Tarr & McMurry, Utah Supplement, 42-4 (formation of veins), 45-54 (gold mining on the plateau).

Adams, 130-3 (gold and silver).

Redway, New basis, 90-2, 117-18.

Redway's Advanced geography, 85 (gold of the plateau).

Written Work.

1. Describe three kinds of gold mining.
2. Describe a Colorado gold mine.

Text-book Review.

The pertaining material of the text-book is now to be used as a summary and review.

Redway's Advanced geography, 15, 29, 34, 85-7.

Frye's Advanced geography, 154-7.

Tarr & McMurry, Second Book, 283-99, 302-12.

Tarr & McMurry, Introductory geography, 178-9, 187.

PACIFIC REGION.

(Read "Note on Method," p. 53.)

Formal Geography of the Region.

Draw a blackboard map of the states named, and, using it in conjunction with the text-book map of the region, teach the following locations.* Teach also the oral and written spelling:

California, Oregon, Washington.

Pacific Ocean, San Francisco Bay, Puget Sound.

Sierra Nevada, Cascade, Coast Range mountains.

Sacramento, San Joaquin, Columbia rivers.

Mts. Shasta, Whitney, Hood, Rainier.

Yosemite, Death Valley, Lake Tahoe.

San Francisco, Seattle, Portland, Los Angeles.

Test.

The correct filling of an outline map (see foot-note, p. 14).

Lesson Units.

1. This region is wet in the north and dry in the south; its temperatures are mild throughout the year. 2. It is a country of grand mountain scenery and peaks of eternal snow. 3. Continuously with the plateau, it is a region rich in gold. 4. The opulent valleys of California are world-famous for their varied fruits. 5. Here is a great timber region, where grow the largest trees on earth. 6. San Francisco is a great port, with a world-wide commerce at its wharves. 7. The salmon-fisheries are important in the north, and Puget Sound is a famous harbor.

*See note on drills, p. 50.

1. *This region is wet in the north and dry in the south; its temperatures are mild throughout the year.*

Oregon and Washington receive so much rain that the Oregonians are dubbed "Webfeet." On the other hand, the extreme south of California receives so little moisture that large areas are beyond the possibilities even of irrigation. These two extremes merge gradually until at San Francisco about twenty-three inches of rain is expected annually. Some of the northern portions of California receive over eighty inches; and the extreme southeast, opposite the Arizona line, receives only three, or thereabouts. The Sierras receive a heavy annual fall of rain and snow, principally on their western slope, and greater in amount toward the north. Throughout the lowlands of the Pacific region the year divides itself into two seasons—the wet and the dry, as in the tropics. Snow is practically unknown to California, except in the mountains, and the extreme north, which is several thousand feet in elevation.

For this region there are two sorts of rain-bearing wind. The regular westerlies shed a portion of their moisture regardless of season, wherever the mountains rise high enough to wring moisture from them. The seasonal rains of California have a different cause. They are brought by the cyclone of the north Pacific (Fig. 9). The track of this cyclone is so far north in summer that California does not reach into its rainy quarter. In winter the cyclone track moves south (in the general migration of wind belts). This movement brings to California her chief rain supply, heaviest in the north and regularly lessening toward the south.

In teaching this subject in an upper grade, review at some length the relations of (a) mountains to rain, and (b) cyclones to rain. See readings in climate of South America, p. 47, and of North America, p. 75.

Concerning the mild temperatures of the Coast region, we need not complicate the question by any reference to the Japanese Current or others. It is being flatly stated by meteorologists nowadays that the ocean *currents* have little to do with modifying land temperatures. The broad fact is that *the sea itself*—the *whole* sea—is warmer in winter and cooler in summer than the lands. A wind passing over the sea will carry the sea temperatures to the contiguous lands. Therefore all the lands of the earth having prevailing sea-winds (as in California, Norway, etc.) will have oceanic climates, which are cooler in summer and warmer in winter than those normal to the continents. (Read "The Gulf Stream Myth," Scribners', vol. 31, p. 689 et seq.)

The mild temperatures of the Pacific States, British Columbia, and southern Alaska may be referred, therefore, not to any ocean currents, but to the "prevailing westerlies," or "return trades," which sweep forever landward from the mild Pacific.

Review this subject in Unit 3, page 74, for which teacher's readings are there cited.

PUPILS' READINGS:

- Sexton, 191-8 (climate of California).
 Dodge, 190-2 (Pacific Coast rainfall), 207-8 (irrigation).
 Smith, 188-92 (Mojave Desert), 199-203 (Oregon and Washington, in general), 205-6 (climate of southern California).
 Carpenter, 264-5 (climate of California), 279-80, 283 (climate in the north), 262-3 (irrigation).
 King, Fifth Book, 184-93 (climate of the Pacific Coast), 188-90 (climate of southern California), 191-3 (irrigation).
 Carroll, Third Book, 89-94 (climate of southern California).
 Tarr & McMurtry, Second Book, 299 (the dry, irrigated south), 297-8 (irrigation).
 Rupert, 57-8 (climate of the north and south contrasted), 85-7 (climate of southern California).
 Fairbanks, Stories of Mother Earth, 43-8 (rivers which are "upside down"), 62-7 (Mojave Desert), 77-82 (the borax country), 83-8 (salt region of Salton Sea).
 Our country west, 149-53 (Death Valley), 173-8 (irrigation).

TEACHER'S ADDITIONAL REFERENCE:

- Brigham, 302-10 (Oregon and Washington in general), 230-54 (irrigation discussed).
 Shaler, Story of our continent, 182-3 (rains of the Pacific Coast).
 Herbertson, 167-70 (Oregon in general), 196-200 (climate of southern California), 189-91 (Mojave Desert), 163 (climate of the northwest).
 Stoddard, California lectures, 7-20 (Mojave Desert).
 Lummis, Strange corners, 28-42 (the desert), 37-42 (Death Valley and Salton Sea).
 Tarr & McMurtry, Utah Supplement, 83-5 (irrigation).
 Tarr & McMurtry, California Supplement, 10 (streams of southern California), 15-18, 53-4 (climate of California), 19-20 (plants of the dry south), 74-8 (geography of southern California), 81-2 (irrigation), 92-8 (the Mojave country).
 California state introductory geography, 263-4 (climate of California).
 Dryer, 306-7 (trades and anti-trades), 332-41 (Pacific Coast climate).
 Davis, 29-33 (wind belts).
 Shaler, Aspects, 193-6 (irrigation).
 Gilbert & Brigham, 270-2, 228-33, 244-5 (rain and climate, Pacific Coast), 258-9 (cyclones), 256-60 (trades and westerlies).

Written Work.

1. Describe the climate, as to moisture, of the Pacific region.
2. Describe the climate as to temperatures.
3. Explain the mild temperatures.
4. Try to explain the unequal rain distribution.

2. *It is a country of grand mountain scenery and peaks of eternal snow.*

Examining the structure of this region we find the great interior valley of California completely inclosed by mountain ranges, save where the Golden Gate breaks through, in the west. These mountains, called the Coast Ranges, in the west, and the Sierras, in the east, unite in the plateau of the Shasta region and continue north as the Cascades. They unite also in the south, and, passing over the San Bernardino Range, finally constitute the peninsula of Lower California.

In Oregon and Washington, also, there is a great interior valley which compares in some respects with that of California. It lies between the Coast Ranges of those states and the Cascades, and pushes a great arm eastward, breaking the Cascade Range and forming the Columbia River Valley.

Through this great mountain region the scenic features are so plentiful that, in teaching the topic, it is best to focus the recitations upon a few of the most famous scenic units, say Yosemite Valley, Lake Tahoe, Mt. Shasta, and Mt. Rainier. The readings may freely include other features of interest, but the precipitate of the lessons, elicited in the discussions and tested in the written work, should not be inclusive beyond these four.

PUPILS' READINGS:

- Our country west, 139-43 (the Sierras).
 Johannot, Reader, 151-5 (geysers of California), 365-75 (Lake Tahoe), 158-64 (Yosemite).
 Carpenter, 273-4 (Yosemite).
 Fairbanks, Stories of Mother Earth, 136-54 (Shasta and other volcanoes).
 Fairbanks, Home geography, 97-111, 172-6 (mountains of California).
 King, Fifth Book, 172-82 (Yosemite).
 Carroll, Third Book, 108-11 (Yosemite and Big Trees).
 Jordan, True tales, 91-9 (bear story).
 Sexton, 133-44 (wild beasts of the Sierras), 199-208 (the lakes and varied scenery of California).
 Dodge, 144-53 (mountains), 154-7 (volcanoes and lava), 164 (geysers).

TEACHER'S ADDITIONAL REFERENCE:

- Tarr & McMurry, California Supplement, 1-7 (relief of California), 7-10 (drainage of California), 23-4 (animal life of California), 38-44 (the Sierras), 47-9 (Yosemite), 49-59 (glaciers and lakes), 58-60 (Coast Range), 87-92 (mountains of northern California).
 California introductory geography, 258-62 (mountains and rivers of California).
 Herbertson, 193-4 (Sierras), 194-6 (Yosemite), 162-7 (Cascades).
 Tarr & McMurry, Utah Supplement, 19-20 (snowslides).
 Brigham, 287-96 (the Sierras and Coast Ranges).
 Gilbert & Brigham, 101-3 (hot springs and geysers), 189-91 (climate and life in the Sierras), 216-17, 206-8 (Mt. Shasta and other dead cones).
 Dyer, 105-7 (the making of geysers).
 Muir, 1-18, 48-73 (scenery of the Sierras), 20-35 (glaciers of the Sierras and Rockies), 36-47 (snows in the Sierras), 74-96 (passes in the Sierras), 98-124 (lakes of the Sierras), 125-38 (highland meadows), 244-57, 271-5 (a storm in the Sierras), 258-70 (flood-time in the Sierras), 276-99 (the water-ousel), 226-42 (the Douglass squirrel), 300-24 (wild sheep of the Sierras), 325-37 (Sierra foothills), 333-7 (the cave at Murphy's), 338-81 (bee pastures of the Sierras).

Written Work.

1. Describe the mountain arrangement of the Pacific region.
2. Tell what you can about Yosemite.
3. Locate and describe Mt. Shasta.
4. Locate and describe Lake Tahoe.
5. Locate Mt. Rainier.

3. *Continuously with the plateau, it is a region rich in gold.*

Bring out the effect of the discovery of gold upon the settlement of the Pacific Coast. Note, also, that the early period was devoted wholly to placer mining. Hydraulic mining followed, and now the bulk of the gold output is from the quartz mines, although both placer and hydraulic mining continue on a limited scale in some localities. Review the lesson on these three methods of mining (see page 117).

PUPILS' READINGS:

- Sexton, 37-41 (discovery of gold in California), 41-8 (placer mining in the days of '49), 49-56 (the days of easy gold), 57-66 (crossing the plains in the gold rush), 67-74 (building the overland railroad).
 McMaster, 182-6 (the gold rush of '49).
 Carpenter, 239-41 (California gold), 241-8 (a quartz mine).
 Chamberlain, Clothed, 222-5 (California gold).
 Fairbanks, Home geography, 116-19 (gold and silver mines).
 Tarr & McMurry, Second Book, 281-2, 285-6 (the gold of California), 288-90 (placer and hydraulic mining), 290-3 (quartz mining).
 Chase & Clow, Vol. I, 37-44 (gold), 45-7 (silver).
 Fairbanks, Stories of Mother Earth, 161-8 (down a gold mine), 169-75 (California quick-silver), 177-83 (story of a nugget).
 Parker, 207-26 (gold in general), 237-41 (a silver mine).
 Rocheleau, Minerals, 163-8, 187-92 (gold and silver in general), 168-86 (gold in California), 177-80 (placer mining), 180-3 (hydraulic mining), 183-6 (deep mines and stamp mills).
 Wood, 15-21 (deep in a mine).
 Eggleston, 171-7 (discovery of gold in California).
 Rupert, 87-90 (discovery in California).
 Carroll, Third Book, 133-9 (gold-mining).
 King, Fifth Book, 45-6 (placer mining), 47-9 (hydraulic mining).
 Dodge, 49-52 (mining centers).

TEACHER'S ADDITIONAL REFERENCE:

- Brigham, 292-3 (placer and hydraulic gold).
 Tarr & McMurry, California Supplement, 32-5 (discovery in California), 40-3 (gold-mining), 96-8 (borax and salt).

Adams, 130-3 (gold and silver).

Shaler, Aspects, 181-3 (gold under lava caps).

Shaler, Story of our continent, 228-30 (placer mining), 230-1 (hydraulic mining).

4. *The opulent valleys of California are world-famous for their varied fruits.*

A passing treatment of the more important fruit cultures will suffice. Avoid going too deep into the actual processes of cultivation. Note the rich output of southern California, secured by irrigation. Correct the prejudice that northern California is *cold* California. Note the successful cultivation of oranges as far north as Sonoma County, 39° north latitude. Even further north, it is altitude, rather than latitude, that determines the temperatures. Refer these conditions to the oceanic climate brought by the westerlies.

PUPILS' READINGS:

Smith, 205-13 (California valleys).

Carpenter, 266-71 (fruit-ranches of California), 274 (Los Angeles).

King, Fifth Book, 128-9 (a great California fruit-ranch), 194-205 (southern California), 206-15 (the fruitful valleys), 216-25 (schools of California), 226-35 (the old Spanish Missions).

Carroll, Third Book, 105-7 (Monterey), 101-2 (ostriches of southern California), 98-101 (wine and grapes), 94-6 (fruit-raising), 89-94 (southern California).

Tarr & McMurry, Second Book, 299-302 (fruits of California).

Chamberlain, Fed., 165-74 (orange-groves), 174-84 (visit to a vineyard), 187-92 (walnut-farms).

Our country west, 143-9 (raisin-making).

Beal, 169-214 (talks on various fruits).

Rupert, 56-7 (the bigness of a Californian's ideas).

Industries of today, 37-44 (California raisins).

Chamberlain, Clothed, 212-21 (a California ostrich-farm).

Sexton, 8-28 (the old Spanish days, and the missions), 30-6 (the early American period), 75-82 (the wheat of California), 83-91 (orchard, farm, and vineyard), 92-101 (oranges and lemons), 102-10 (California's wild-flowers), 121-32 (birds of California), 145-58 (the fishing along California coasts), 159-68 (the Indians and the padres).

Winterburn, 9-26 (Indians of California), 27-42 (Indian legends), 97-170 (the padres and their missions), 171-222 (Spanish days in California).

TEACHER'S ADDITIONAL REFERENCE:

Stoddard, California lecture, 20-102.

Ballou, Footprints, 5-10.

Redway, New basis, 118-19.

Herbertson, 106-200 (fruitful valleys in southern California).

Muir, 338-81 (bee-pastures).

Chisholm, 75-8 (fruits in general).

California state introductory geography, 265-71 (grain, fruits, and stock).

Tarr & McMurry, California Supplement, 26-37 (early days and Spanish missions), 45-6 (sheep and cattle in California), 51-8 (the great interior valley), 60-2, 71-4 (the coast valleys), 79-81 (fruits of southern California, 83-6 (cities of the south).

Written Work.

1. Write a list of the principal California farm products.
2. Tell about the climate needed for orange growing.
3. What are prunes? What are raisins? Describe wine-making.
4. What are the principal products of the great interior valley?
5. Tell about the old Spanish Missions.

5. *Here is a great timber region where grow the largest trees on earth.*

Teach about the great age of the *Sequoia gigantea*, or "big trees," and the method of calculating it by their annular layers. Use familiar standards of comparison. For example, these trees must have been already enormous, and centuries of age, when Columbus discovered America. Many of those now standing had seen their sapling stage ere Christ was born.

Assign readings also on the giant pines and spruces of the Sierras and of Oregon and Washington.

Note that, here in the West, the lumbering season is in the summer, while in the East it is in the snow months.

PUPILS' READINGS:

Carroll, Third Book, 108-10 (the big trees).
 Carpenter, 271-3 (the big trees of California), 280 (the big trees of the northwest).
 Tarr & McMurry, Second Book, 294-6 (lumbering in Washington).
 Johnnot, Reader, 165-8 (the big trees of California).
 Our country west, 131-5 (the big trees), 135-9 (lumbering in the Sierras).
 Rocheleau, Soil, 42-6 (lumber of the Pacific Slope).
 Fairbanks, Home geography, 199-205 (lumbering in the Sierras).
 Sexton, 111-20 (the sequoias, or big trees).
 Dodge, 43-6 (lumbering centers).
 King, Fifth Book (logging in the big-tree country), 165-70 (sequoia groves of California).

TEACHER'S ADDITIONAL REFERENCE:

Brigham, 279-85 (the Pacific forests).
 Shaler, Story of our continent, 116 (the Pacific forests).
 Herbertson, 163 (the forests of the northwest).
 Tarr & McMurry, California Supplement, 20-2, 43-5 (forests of California), 69-70 (lumber of the northern counties).
 Adams, 107-12 (United States lumber trade).
 Muir, 139-79, 200-25 (forests of the Sierras), 179-200 (the giant sequoias).
 Gilbert & Brigham, 319-23 (forests of North America).

Written Work.

1. Tell where the big redwoods are found, and something about their age.
2. Tell about the trees of the Northwest.
3. Contrast the logging method of the West with that of the East.

6. *San Francisco is a great port, with a world-wide commerce at its wharves.*

Show how nature has bestowed upon San Francisco's harbor a monopoly of sea-going commerce for nearly our whole western seaboard. Only Puget Sound can ever prove a competitor, in a large way. Review this subject as treated in Unit 2, page 70.

PUPILS' READINGS:

Sexton, 169-79 (story of San Francisco).
 Smith, 213-17 (San Francisco).
 Carpenter, 274-8 (San Francisco and Chinatown).
 King, Fifth Book, 130-40 (San Francisco), 141-64 (Union Iron Works, a battleship factory).
 Carroll, Third Book, 117-18 (Union Iron Works), 113-16 (San Francisco).
 Fairbanks, Stories of Mother Earth, 49-57 (the making of San Francisco Bay).
 Dodge, 11-13 (value of harbors), 105-3 (lagoons and bars: types of poor harbors, for comparison), 165-70 (drowned valley harbors).

TEACHER'S ADDITIONAL REFERENCE:

Brigham, 286-302 (California as a state; the sphere of the Golden Gate).
 Tarr & McMurry, California Supplement, 10-14 (coasts and harbors of California), 24-6, 50-1 (resources of California), 63-9 (San Francisco and its harbors).
 Herbertson, 200-2 (San Francisco and its bay).
 California state introductory geography, 271-8 (resources of California), 278-83 (cities of California).
 Adams, 22-6 (the sites of cities), 160-1 (San Francisco as a port).
 Dryer, 95 (San Francisco Bay as a drowned valley), 227-9 (rising and sinking coasts).
 Shaler, Aspects, 7-9 (rising and sinking coasts; instance of the temple).
 Gilbert & Brigham, 10-11, 63-5 (rising and sinking coasts), 307-8 (Pacific coastline).

Written Work.

1. Tell of the advantages enjoyed by San Francisco, as a port.
2. What is the belief as to how San Francisco Bay was formed?
3. Write a little description of San Francisco.

7. *The salmon-fisheries are important in the north, and Puget Sound is a famous harbor.*

Note the curious habits of the salmon. While the fish is characteristically a salt-water creature, all the catching is done in rivers.

Note Puget Sound as one of the world's most magnificent harbors, with a great future before it.

PUPILS' READINGS:

- Our country west, 17-20 (a salmon-pool).
 Smith, 197-8 (Alaska salmon).
 Rupert, 79-81 (the Puget Sound country).
 Carpenter, 281-3 (Columbia River salmon), 278-84, 289-90 (Washington and Oregon described), 289-94 (Indians of Washington and Oregon).
 King, Fifth Book, 78-106 (Seattle and Puget Sound), 107-9 (Columbia River region), 167-9 (sage plains of Oregon).
 Carroll, Third Book, 142-3 (Columbia River salmon).
 Tarr & McMurry, Second Book, 316-17 (Columbia River salmon), 317-18 (Puget Sound country), 316 (Columbia River country).
 Beal, 131-3 (salmon fisheries).
 Jordan, True tales, 27-41 (story of a Columbia River salmon).
 Dodge, 53-5 (fishing centers).

TEACHER'S ADDITIONAL REFERENCE:

- Ballou, New El Dorado (Alaska salmon).
 Herbertson, 169-70 (salmon-canning in Alaska).

Written Work.

1. Describe the salmon industry: (a) habits of the fish, (b) the fishing, (c) the canning.
2. Tell about Puget Sound.

Text-book Review.

The pertaining material of the text-book is now to be used as a summary and review.

- Redway's Advanced geography, 89-91.
 Frye's Advanced geography, 154-7.
 Tarr & McMurry, Second Book, 281-302, 311-18.
 Tarr & McMurry, Introductory geography, 176-87.

General Text-book Review of the United States.

This review material is found in

- Redway's Advanced geography, 49-61.
 Frye's Advanced geography, 123-42.
 Tarr & McMurry, Second Book, 121-318.
 Tarr & McMurry, Introductory geography, 141-87.
 Adams' Commercial geography, 49-56.

A TEACHERS' HANDBOOK

IN

GEOGRAPHY

PART II

EURASIA, AFRICA, AUSTRALIA

AND THE

ISLANDS OF THE PACIFIC

BY

FRANK F. BUNKER

STATE NORMAL SCHOOL
AT SAN FRANCISCO

SAN FRANCISCO

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FRANK F. BUNKER

PREFACE.

Bulletin No. 10 owes its inception to the appointment, by Dr. E. C. Moore, President of the California Council of Education, of a committee, comprising Frank F. Bunker, Deputy Superintendent Heaton (San Francisco), Professor Holway (State University), Superintendent James A. Barr (Stockton), and Walter J. Kenyon (State Normal, San Francisco), to prepare a teachers' handbook to accompany the California State Series geography texts (recent adoption). The handbook as prepared by the committee was laid before both the Council and the State Teachers' Association, adopted and ordered printed, but through lack of funds available for the purpose the Council found itself unable to proceed with its publication. The matter contained in Parts I and II of this issue is the material contributed by Messrs. Kenyon and Bunker to the handbook as prepared by the Geography Committee, and is published by the State Normal School for the use of its student teachers and the teachers of the State.

This handbook is not designed to supersede the text-book, but to supplement it by indicating specifically what features of the text should be emphasized and elaborated and what omitted. Despite attempts to the contrary, the text-book of geography can never be more than a reference-book containing necessary maps, tables of statistics, and useful charts and diagrams. It can never contain that wealth of interesting and vivid geographical detail which is to be found in fiction, in travelers' tales, and in the many stories of life and adventure which are accessible, and without which the study of geography degenerates into the prevalent though perfunctory process of memorizing meaningless words and phrases. The handbook takes up each natural area of the world; selects one or more typical and characteristic features of each; gives a list of the best references (children's and teacher's) to the supplementary material at hand; and then follows with comments on the topic and its presentation with the thought that such a body of comment will at least serve the purpose of rendering easier the work of the teacher in her preparation.

It is not thought that any one teacher can present to her classes all of the topics and material suggested. Some teachers have more time for the work, some again have better facilities for carrying it out than have others. The suggestions, therefore, which are given herein should not be followed blindly, but adapted and shaped to suit the needs of particular situations. Again, it is not desirable to attempt to treat all of the topics listed under any one region in a given grade. Teachers of those grades below the Seventh and Eighth

will find it profitable to pass over the world once, using the elementary text as a basis, and selecting from the handbook those topics which have a picturesque and biographical interest, and reserving those of a commercial, industrial, and political nature for a "second time over" in the Seventh and Eighth grades, and with the advanced text as the basis. Thus, for example, in the "Study of the Kingdom of Great Britain and Ireland," page 14, lesson units II and IV could well be presented, in whole or in part, in the lower grades, while units I and III would better be reserved for more mature children. Again, in the "Study of the German Empire," page 18, lesson units I and III can be easily shaped to the interest and comprehension of lower grade children, where No. II would probably be beyond them. Similarly with the other regions treated, those units dealing with the more abstract commercial, economic, and political considerations should be reserved for the work of the higher grades, while those topics treating of the ways of peoples—their customs, life, ideals; of the picturesque and historic buildings and monuments of the world; and of the great men of the past and the present—can well be handled in the lower grades.

The reading-lists have been made rather full, not with the idea that any school will find all the books cited accessible, nor, indeed, with the thought that access to all is by any means a necessity, but rather for the reason that out of the list given every teacher will find at least some available. Each year the teacher should add as many books to her school library from those recommended as her funds will warrant. The better her equipment in this respect the better will be her work. In purchasing books it will be best, before securing many of the single books listed, to get the sets which are listed under the head "Series," on page 92.

In the preparation of this part of the handbook the writer wishes to acknowledge his indebtedness to Mr. Heaton and to the other members of the Geography Committee for helpful suggestions; to the Librarians of the Public Library and of the Mechanics' Institute for the many courtesies which they have extended; and to Miss Stella Huntington, Librarian of the State Normal School, for her painstaking coöperation in securing the reading lists given. It should be added that whatever merit there may be in the idea as herein advanced and worked out is due in a large degree to the suggestions and keen criticisms of Dr. Frederic Burk, President of the school.

March, 1905.

FRANK F. BUNKER.

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THE CONTINENT OF EURASIA.

Map Locations (to be taught first): Europe, Asia, Japanese Islands, Philippine Islands, East Indies; Pyrenees, Alps, Apennines, Carpathians, Caucasus, Himalayas; Ob, Yenisei, Lena, Amur, Hoang, Yangtse-Kiang, Ganges, Indus, Ural, Volga, Rhine, Elbe, Dwina rivers.

The Structure of the Continent (to be given next): Have the children turn to the map (advanced text, pp. 112-113). Examine the highlands, and observe that the backbone of the continent reaches from Bering Strait to the extreme southwestern part of Europe; in comparison, it is nearly as long as the backbone of North and South America together; and that in Europe it is much more narrow and broken, while in Asia it is much less broken and as wide as the widest part of the United States. In this connection the children should learn, if they have not already done so, the location and names of the few important ranges of this axis: In Europe, they should know the Pyrenees, the Alps, the Apennines, and Carpathian Mountains; in Asia, the Caucasus and the Himalaya ranges. They should observe also that this axis has very much the shape of the following figure: 

Tell the children to imagine this figure to be the ridge-pole lines of a roof, as one looks down upon it. Ask them to state in what direction the water will flow when it falls on this roof. Apply this idea to the map of Eurasia and draw the conclusion that if rain were to fall throughout the entire length of this great water-parting, it would be thrown off toward the north, toward the east, and toward the south, and that therefore we would expect the rivers of Eurasia in the main to flow in these general directions. An examination of the map (advanced text, p. 112) with respect to the course of the rivers will show that in a general way this is correct. It is therefore reasonable to conclude that the land-slope of the continent is in these three general directions.

In regard to climatic conditions, observe, first, that the continent of Eurasia extends from the Arctic Region, on the north, nearly to the equator, on the south, and that in consequence the climate must be one of extremes,—that is, extremes of cold in the north and of heat in the south. Observing the northern region the children will see that because of the absence of a range of mountains trending east and west there is no obstacle to the passage of icy winds southward. This causes the summer frosts of Siberia, and very cold winters in Peking, which is in the latitude of Rome. In Europe these

extremes of temperature are considerably modified by the prevailing winds from the Atlantic. Again, observe that the Himalaya Mountains and the Central Plateau of Eurasia, extending east and west, is an effective obstacle in the way of the passage of the warm rain winds from the Indian Ocean. Hence the deserts of Gobi and Tibet in the Chinese Empire, and the heavy precipitation of rain to the south and east of the Himalaya Mountains. This region, together with that along the southeastern coast, lies in the monsoon area of the continent. The humidity of this region depends on the southeast monsoon, which blows in from the ocean during summer and in the opposite direction during the winter. This change of direction gives the region dry, cold winters and warm, moist summers. This change from the summer to the winter monsoon gives rise to fierce and disastrous storms off the coast, called typhoons, which make navigation at this time exceedingly dangerous.

At this point the teacher could with advantage take up the subject of "Monsoons," with a view to bringing out clearly the chief forces involved in producing these changes in the direction of the prevailing winds. In this connection the teacher can refer to the discussion of "Winds" given in the advanced text (pp. 25-26). In Tarr and McMurry's *Complete Geography* (pp. 229-231), or in any good physical geography, the teacher will find an adequate explanation of this topic.

The points in the explanation which should be clearly presented are:

1. That the land gets warm and cools off quicker than the water. Show this by a simple experiment. Take a pan of sand and one of water. Take the temperature of each at a given time. Put both on a hot stove; record the temperature of each for fifteen minutes; take both pans off the stove and set together in a cool place. Continue recording the temperature of each every few minutes until one has reached the starting-point. Examine the records, and the conclusion will be obvious that the land gets warm and cools off more quickly than the water.

2. That the land, when it becomes warm, warms the air above it, which expands and grows light; but the air over the water remains comparatively cool. Thus the equilibrium of the air is disturbed and a flow of cool air inland results.

3. That the larger the continent the greater will be the difference in temperature between itself and the surrounding water,—hence the greater the force of the air-flow.

4. That in the monsoon regions of Asia during the winter the heavy air over the cold land presses outward beneath the warmer air of the ocean. The consequence is, that a prevailing dry, cold wind blows from the land toward the sea. In the summer the land becomes heated; the cool air from the water flows in, bringing with it moisture, which being precipitated on the slopes gives southeastern Asia her rainy season.

(For further experiments to be given in connection with air movements, and also for many helpful suggestions in the treatment of this physiological aspect, see Miss Effie B. McFadden's article, "The Special Method

of Physical Geography," in San Francisco State Normal School Bulletin No. 2, Chapter V.)

Take up for brief consideration the effect of these conditions on the animal and plant life of the continent with a view to showing how, in a large way, these have in turn reacted on the life of the inhabitants of the region. (For what follows on this point I am greatly indebted to a most suggestive little book by Herbertson, "Man and his work," Macmillan.)

Broadly speaking, all land is either forest-land, grass-land, or desert, and the geographical conditions which obtain in each determine the occupation of the people, which in turn profoundly affects their manner of life, their ideals of government, and their notions of trade. It will not be profitable to go too deeply into this aspect of the question, or to attempt to work out in detail how occupation, and the conditions which have determined occupation, have reacted on the life of each separate country. It will be sufficient in this connection to treat each of the following topics as they apply to the continent under consideration, Life in the Tundras, Life in the Steppes, Life in the Deserts.

Life in the Tundras: In presenting this region, the chief descriptive characteristics should first be brought out. (See advanced text, pp. 22, 29, 31, 32. 115.) The children in this connection should know that "Tundra" is the Russian name for the frozen region surrounding the Arctic Ocean, the same region in fact which in Canada is called the "Barren Lands." They should know that it is a belt of dwarfed and scattered vegetation, gradually displaced toward the north by fields of unbroken ice and snow; whereas to the south, the stunted copses gradually shade into sparse woods, which pass in turn into the forests of the north temperate lands. They should know too that the Tundra is crossed by great rivers like the Ob, Yenisei, and Lena, in Siberia, and the Mackenzie in North America; that these rivers are ice-bound for more than half the year; that the upper waters thaw first, which causes great floods along the lower courses; and that these rivers teem with fish, which play an important part in the life of the inhabitants of the Tundra.

With this knowledge of the characteristics of the Tundra, the children are ready to discuss its influence on the inhabitants. In this connection, it should be shown that they depend very largely on fish for food, and on the reindeer for transportation and clothing. Fishing, the hunting of fur-animals, and the tending of reindeer constitute, therefore, almost the only occupation of the people. As reindeer cannot be kept in captivity, but must be allowed to wander in search of food, and as hunting and fishing are occupations necessitating frequent changes of habitation, the life of the people is in consequence one of constant wandering, except in the depth of winter, when it is impossible. This in turn determines the character of the dwellings, for we find that their shelter during the summer months consists of tents which can be set up and taken down quickly and easily. In winter, when they are

forced by the severity of the weather to remain in one place, the tent gives way among the Lapps to rude dwellings of turf supported on sticks, and among the Eskimos of ice and snow. The possessions of a people leading such a wandering and precarious life must of necessity, the children will readily see, be very few, and limited strictly to the weapons, tools, and utensils which are indispensably connected with transport and the chase. The sledge is universally found, drawn either by dogs (among the Eskimos), or by reindeer (among the Lapps). Bows and arrows are the customary weapons, though firearms are spreading, owing to the occasional contact of these tribes with the fur traders of civilization.

It will by no means be beyond the comprehension of the children of the grades, nor without profit, to carry the discussion one step further with a view to observing how the manner of life of these tribes reacts on the family life of the peoples. Obviously, such a life is devoid of all those emotional qualities which go with a fixed home and a reasonable security of existence. Again, where subsistence is so precarious, and where a people is forced to make frequent changes in habitation, there is little pity for those unable to support themselves, and the aged, the sick, or the weakly children are frequently left to perish. Finally, the scanty resources give no margin for the accumulation of wealth or leisure for the improvement of the comforts of life.

Either at this point or preceding this discussion the teacher should put as many as possible of the following references into the hands of the children. These references will re-enforce in a vivid way the points already made, or, if read before, will afford an excellent basis for the above discussion.

Herbertson, Asia.....	pp. 3-4.
Herbertson, Man and his work.....	pp. 7-14.
Pratt, Northern Europe.....	pp. 45-53.
Shaw, Big people and little people of other lands.....	pp. 52-60.
Handbook, part I, unit No. 1, "Arctic America."	
Starr, Strange peoples.....	pp. 47-59.
The people of the reindeer (Laplanders).....	Cent.—58: 582.

Life in the Steppes: As with the preceding topic, begin this treatment by bringing out the characteristic descriptive features of the region. (See advanced text, pp. 28, 29, 31, 32, 115.) Point out that in each continent there are certain regions, usually at great distances from the sea, which obtain insufficient rainfall to produce a forest growth, but get enough for the smaller forms of vegetation. Such regions are the great grassy, treeless plains of the several continents, and which are variously designated. In North America they are called "prairies," in South America "pampas" or "llanos," while in Eurasia the term "steppe" is used. Being a region of grasses, and having a temperate climate, it is perfectly suited to the domestication and breeding of animals, which, in point of fact, is the occupation of the inhabitants of the region. As the flocks are continually eating up the grass, the life of the Steppes must be, as with the inhabitants of the Tundras, a wandering one. It will be interesting as well as profitable to contrast the pastoral life of the Steppes with the life of the Tundras; though they are both

nomadic, yet in all other important respects the reaction on ideals of life and living are widely different.

In drawing this contrast, bring out that the environment is a much more generous one, permitting the inhabitants to secure not only the necessities of life, but some of its luxuries. Thus the people are able to care for their aged and sick, and such inhuman practices as the killing of infants and parents are unknown. The dwellings, while consisting of tents, are commodious and comfortable, and in many instances are furnished with rugs, cushions, and carpets of great beauty and value.

As the flocks and herds grow to great sizes, many persons are needed in their care; the larger the household, the more numerous the sons and daughters, the greater can be the size and number of the flocks cared for. So from Bible times down we find the head of the family, the patriarch, when sufficiently rich, taking more than one wife, and becoming the father of many children and the master of many servants, many of whom are related to him by blood. For the same reason the sons when married remain by the father, and thus a large and related group grows up. In some such manner as this the teacher can show the children how the geographical conditions under which a people live determine in a considerable degree their occupation, and their mode of life.

It might be well to illustrate how even the thought and the form of expression of a people is influenced by these same geographical conditions. Thus, for example, the expression in the Twenty-third Psalm: "He maketh me to lie down in green pastures: He leadeth me beside the still waters," expresses the ideal of comfort and good-living in a Steppe land, where water is often so scarce that man and beast are parched with thirst, and the grass withers in the scorching sun. The phrase

"As rivers of water in a dry place, as the shadow of a great rock in a weary land."—ISAIAH xxxii:2.—

the thought in a familiar hymn, "A shelter in the time of storm," expresses the longing in a country monotonous in its absence of tree and rock. Again, the familiar phrases, "The desert shall bloom as the rose," and "The grass withereth and the flower fadeth," according to travelers, present an accurate description of the Steppes during successive seasons.

The following references will be found of value in this connection:

- | | |
|---|-------------|
| Miller, Little people of Asia..... | pp. 117-28. |
| Herbertson, Man and his work..... | pp. 22-31. |
| Herbertson, Asia..... | pp. 7-11. |
| Norris, Nadya: a tale of the Steppes..... | (Fiction). |
| Herbertson, Europe..... | pp. 48-54. |
| Carpenter, Europe..... | pp. 168-71. |

Life in the Deserts: Usually the greatest rainfall of a continent, and in consequence the densest growth of vegetation, is found along the coasts. As one proceeds toward the interior of the great continent of Eurasia, or North America, the rainfall diminishes, and grass becomes the characteristic vegetation. (The Steppe Region.) As the rainfall diminishes still further, the

land becomes more and more arid, the grass less bountiful, until it passes at last into the true desert. An examination of the maps on pages 113 and 114 of the advanced text will show that there is such a rainless belt stretching across the continent from China to the Red Sea. After locating the desert belt, not only in this continent, but around the world, the teacher should take up the discussion of its distinctive characteristics, bringing out its peculiar forms of vegetable growth, and how they are adapted to the climate; its landscapes made monotonous by the absence of a variety of vegetation, the extraordinary clearness of its air, and the beauty of its coloring; the characteristic animals of the region and their wonderful adaptation to the life they are forced to live; and lastly the oases with their palms and fruit-trees and their congested populations.

Point out that except on the fringe of the desert, where the conditions are simple (the Steppe region), and where the population lives in rude villages and pastoral camps, and in the larger oases, where agricultural pursuits are carried on, the life of the people is a truly nomadic one, the inhabitants being chiefly engaged in camel and caravan driving. These people hold the greatest contempt for a settled life, and use their opportunities to the best advantage for plunder and treachery, which is encouraged by the extreme poverty of the people, and because of the lack of any effective governmental surveillance.

It will be well in this connection to compare life in the desert with that already considered in the Tundra region. They are alike in the scarcity of vegetation and in the lack of agricultural conditions, but from different causes; the desert has little beside the date-palm for food and the camel for transportation; the Tundra is well watered, is covered in many places with reindeer-moss, and its streams are full of fish, yet in many respects, the inhabitant of the desert is the more fortunate, for shelter and clothing are of comparatively little importance, and then, besides, his country lies where he can trade with rich countries adjacent, and this carrying trade becomes an important source of income. In brief, bring out that though life in a desert shows in a marked way the influence of geographical conditions, yet it is less primitive and less isolated than that which is developed in the region of the Tundras.

Such descriptions as have been suggested in the foregoing notes will be of profit not only in showing how in a large way a people's occupation has influenced its customs and ideals of life, but it will also serve to show the children clearly how it is possible that such diversities in language, in customs, and in tastes as are exhibited in a striking way among the countries of Europe as well as of Asia have come about. These discussions will afford a fitting basis for the consideration of the next topic mentioned in the advanced text, "Peoples and Countries of Europe," pp. 117-120.

"Peoples and Countries" (advanced text, pp. 117-120): The emphasis in the treatment of this topic should fall on the story of the founding of the

various nations of Europe,—the theories which have been advanced regarding their origin and ultimate division into some twenty countries, and the factors which account for their diversities in language, standards of living, and governments.

It should be pointed out that there have been people in Europe for thousands of years; that it is a much-disputed question as to who the first people were, where they came from, and where they settled, and that scientific men have evolved two theories to answer these questions. By excavating deep into the earth, they have found skeletons of men, together with rude tools made of stone. By comparing these evidences with others found in different parts of the world, they have been led to believe that all the races of Europe came originally from one tribe, and that the early home of this tribe was somewhere in the highlands of Central Asia. They believe also that the offspring from this tribe migrated east and south, and towards the west into Europe. By comparing languages, they find that certain words, like *father*, *mother*, *sister*, *brother*, bear a very close resemblance in all the languages. For this reason, also, they believe that all the races sprang from one tribe, which they have called the "Aryan" tribe, or family. Other men, using the very same evidence of tools, skeletons, and language, have come to a very different conclusion regarding the early home of the race. They say that the Mediterranean Sea was once dry land, and that Europe, Asia, and Africa were once one great land-mass, and that what is now the sea was then the home of these early people. They think that from this region the race spread to Africa, to Asia, and to Europe. In talking about these notions the teacher must make clear to the children that they are only more or less plausible theories, and that in reality no one actually knows. While all this is very uncertain, yet we do know that about five hundred years before Christ Europe was fairly well peopled, with the main divisions distributed in this way: the Latin races in the southern region, along the Mediterranean; the Teutons in the north central part; the Celts in the extreme western part; and the Slavs to the northeast. These regions should be clearly defined and expressed by the children on outline maps of the continent. (Read to them, also, pages 10 and 11 of Carpenter, Europe.) At this point it would be well to recall the discussion in connection with the preceding topic,—of how occupation, and the conditions which determine occupation, account in a large measure for the differences among the Slavs, the Celts, the Teutons, and the Latins—differences which as time passed became more and more accentuated because of their greater isolation. Thus, for example, the Alps long separated Italy from France. The Pyrenees isolated the Spanish peninsula from the rest of Europe. The middle Rhine valley was the frontier of Roman power, and was the boundary-line between the primitive Frank and German tribes, which developed into the modern nations of France and Germany. (See map XXII in the appendix, advanced text.) The Rhine delta isolated and fostered the Netherlands; Great Britain was insular, and Scandinavia and Italy peninsular. Slavonic people occupied the central plain and de-

veloped into the Russian empire. The kingdom of Austro-Hungary, became a political unit in the Danube valley. (See Trotter, *Geography of Commerce*, p. 242.) Discuss briefly how diversity of language grew out of this segregation and the partial isolation of these peoples.

A STUDY OF THE KINGDOM OF GREAT BRITAIN AND IRELAND.

Map Locations (to be taught first): England, Scotland, Wales, Ireland; North Sea, English Channel, Irish Sea; Thames River; Cheviot Hills; London, Liverpool, Edinburgh, Glasgow, Dublin.

Lesson Unit I: The magnitude of British industrial enterprise and the causes for her commercial supremacy.

READING LIST:

Carpenter, <i>Europe</i>	Chaps. VI, VII, VIII.
Coe, <i>Modern Europe</i>	Chaps. II, III (Parts).
Knox, <i>Great Britain and Ireland</i>	Chaps. V, VII, XV, XVIII, XXII.
*George, <i>Little journeys (England and Wales)</i>	{ Part I: pp. 13-16, 18-24, 38-42. { Part II: pp. 47-51.
**George, <i>Little journeys (Scotland and Ireland)</i>	pp. 8-13.
Tarr and McMurry, <i>Bk. III</i>	pp. 174-205.
*Adams, <i>A commercial geography</i>	pp. 195-213.
*Redway, <i>Commercial geography</i>	pp. 295-303.
*Trotter, <i>Geography of commerce</i>	pp. 249-60, 377-79.
King, <i>Northern Europe</i>	pp. 234-50.
Stoddard, <i>Lectures</i> vol. IX.....	pp. 113 et seq.
	{ Supplementary vol. I (Parts).
*Webster, <i>General history of commerce</i>	pp. 446-56.

Note of explanation: One asterisk designates those books adapted for teacher's use alone; two asterisks, those which can be read by fourth-grade children and under; while the absence of any asterisks signifies that the books so classed can be read by fifth- to eighth-grade children.

Suggestions: After having given the children, through the reading and discussion of the above references, a conception of the variety and magnitude of the commercial and industrial enterprises of Great Britain, it would be well to consider some of the reasons why she has become the foremost nation in the world in these respects.

In this connection bring out through the extended discussion of the maps and of the children's reading that the chief factors in British supremacy are the following:

1. Her fortunate location, being in close proximity to the great markets of continental Europe. (See map, advanced text, p. 154.)
2. Her separation from the United States and Canada, the chief sources of her food supply, as well as the best markets for her manufactures, by the narrow part of the Atlantic Ocean.
3. By having an equable sea climate, which is favorable to all her industries.
4. By having vast and rich colonial possessions which exchange raw products for the manufactured articles of the mother country. (For a map of these colonies, see Tarr and McMurry, *bk. III*, p. 202; also, advanced text, p. 154.) Through exchange with her colonies alone Great Britain has increased her foreign trade to nearly double that of any other nation. This means that many ships must be employed; hence the greatness of Britain's

carrying trade. It is said that more than a thousand vessels enter British ports daily.

5. The abundance of coal and iron ore in the island in close proximity has made an enormous industrial development possible. Why? This expansion has been mainly in three industries—the manufacture of cotton goods, of iron and steel products, and of woolen goods. Why? (For a map showing the coal-fields of the British Islands, see Tarr and McMurry, bk. III, p. 184.)

6. The superior shipping facilities of the islands render transportation cheap and quick, thus facilitating commercial expansion. No manufacturing center is more than fifty miles from a port. This nearness to seaports, together with an excellent system of railroads and canals, is a large factor in bringing about Britain's commercial prosperity.

It must be made clear that the mere enumeration of the above statements as to the causes which have led to British trade supremacy is of no value in itself. There is no doubt that there are many other factors just as important intrinsically as these. The value lies in the discussion provoked while working them out and then only if they come naturally on the child's part as a conclusion which he has drawn after reflecting on the many significant details which it is presumed the teacher will have first presented.

Lesson Unit II: The English people are a fused race, being a people of mixed Latin and Teuton blood.

READING LIST:

(Caractacus and Boadicea).

- Henty, *Beric the Briton*..... (Fiction).
 Blaisdell, *Stories from English history*..... pp. 1-17.
 Church, *Stories from English history*..... pp. 3-51.
 Guerber, *Story of the English*..... pp. 24-26.
 Pratt, *Stories of England*..... pp. 5-52.
 Strickland, *Stories from ancient history*..... pp. 237-46. 300-307.
 Butterworth, *British Isles*..... pp. 285-91.

(Alfred).

- Butterworth, *British Isles*..... pp. 102-106.
 Arnold, *Stepping-stones to literature*..... 3-171-74.
 Baldwin, *Fifty famous stories retold*..... pp. 5-10.
 Church, *Stories from English history*..... pp. 82-92.
 Bosworth, *Alfred the Great*.....
 Morris, *Historical tales: English*..... pp. 30-44.
 Haaren and Poland, *Famous men of the Middle Ages*. pp. 135-42.
 Guerber, *Stories of the English*..... pp. 44-53.
 Blaisdell, *Stories from English history*..... pp. 31-37.
 Farmer, *Boy's book of famous rulers*..... pp. 160-94.
 Gilman, *Magna Charta stories*..... pp. 183-92.
 Strickland, *Stories from history*..... pp. 67-100.
 Wright, *Children's stories in English literature*..... 1-57-78.
 *Besant, *The story of King Alfred*.....
 Brooks, *Chivalric days*..... pp. 98-123.
 Church, *Stories from English history*..... pp. 67-92.

(William the Conqueror).

- Blaisdell, *Stories from English history*..... pp. 47-66.
 Brooks, *Historic boys*..... pp. 65-82.
 Haaren and Poland, *Famous men of the Middle Ages*. pp. 167-72.
 Tappan, *In the days of William the Conqueror*..... (Fiction).
 Guerber, *Stories of the English*..... pp. 73-84.
 Butterworth, *Northern lands*..... pp. 61-66.
 Church, *Stories from English history*..... pp. 107-35.

(Beowulf).

- Church, *Heroes of chivalry and romance*..... pp. 1-60.
 Ragozin, *Siegfried and Beowulf*..... pp. 211-330.
 Wright, *Children's stories in English literature*..... 1-20-33.

(Druids).

- Benedict, *Stories of persons and places in Europe*.... pp. 107-10.
 Bulfinch, *Age of fable*..... pp. 436-44.
 Guerber, *Story of the English*..... pp. 13-17.

Suggestions: The teacher can make her presentation of this lesson interesting and effective by telling the story of Caractacus and Boadicea, to illustrate the coming of the Romans; the story of Beowulf and of King Alfred, to bring out the facts of the coming of the Saxons; and finally the story of Harold and William the Conqueror, and the Battle of Hastings, for the invasion by the Normans.

As a setting for the stories of Caractacus and Boadicea, the purpose of the Roman invasion should be brought out, how these invaders were opposed by the Druids; the attempts on the part of the Romans to make roads and forts and to establish their civilization; and lastly how quickly all results of Roman occupation disappeared.

The story of Beowulf, if sympathetically told by the teacher, will give a good notion of the wild, savage life of the Saxons, and of their ideals of government and social relationships. Before telling the story the teacher should read the first chapter (vol. I) of Taine's *History of English literature*; also, the first sixteen pages of Green's *Short history of the English people*. The story of King Alfred will serve to bring out the better and nobler side of these rough people.

The story of the conquest of the Saxons by William the Conqueror will give the opportunity to point out the origin of the Normans, their character, ideals, and particularly how they differed in language and customs from the Saxons, and how the fusion of Celts, Saxons, and Normans after a long period of turbulence accounts in the main for the fact that the English race is by no means a pure one, but originally made up of widely varied stock.

The effect of the Conquest in enriching the English language should be noted. The Norman conquerors naturally came to comprise the aristocracy, while upon the conquered Saxons devolved the work of tilling the fields, tending the herds, and ministering as servants to their masters. In consequence, it was natural that all words relating to architecture; to dress, and to the arts and trades which contributed to the easy life of the Norman ladies; to all matters having to do with war, with hunting, and with cooking; to legal forms and to government; to the vices, luxuries, customs, and lives of the upper classes, should be French in their origin. On the other hand, those words having to do with manual occupations, with agriculture, with stockraising, and with the duties usually performed by servants are of Germanic origin. The teacher should select words illustrating these points. (See "Foreign words in English speech," Brander Matthews, in Harper, 107: 476-479.) For example, "hog" is Germanic, while "pork" is Norman-French. The Saxon servant tending the animal applied to it the former term; when it appeared on the table before the Norman knights and ladies it was no longer "hog," but "pork." So with "oxen" and "beef" and with many other words. In numerous instances either the Saxon or the Norman term forced its rival from the language; so that many have not survived, but yet, in still other instances, both terms have come down to us. The result of this fusion was greatly to increase the power of our language to express varying

shades of thought and feeling. It is said that next to the Greek language it has made the English the most splendid poetic language of the world.

Lesson Unit III: The government of Great Britain.

READING LIST:

- Carpenter, Europe.....pp. 76-84.
 Stoddard, Lectures, vol. IX.....(Parts).
 **George, Little journeys (Scotland and Ireland).....pp. 28-30.
 King, Northern Europe.....pp. 114-18, 149-55.
 Knox, Great Britain and Ireland.....Chaps. XXVIII, XXIX.
 Coe, Modern Europe.....pp. 36-37.
 Tarr and McMurry, Bk. III.....pp. 205-206.

Suggestions: Draw from the above references the characteristic features of a limited monarchy,—i. e. a government in which the ruler is hereditary, and yet can rule only as the constitution and laws prescribe. Compare the British Parliament with our Congress with respect to the manner of creating membership, terms of office, qualifications required of members, duties and privileges, and particularly with respect to the control exercised over their respective executives.

Bring out the thought that historically the idea of a limited monarchy grew out of the desire to place the king under restraint in order to check any tendency to ill-considered and arbitrary action, and that much of the history of England is but the story of the struggle between the king and his people which such an ambitious design precipitated. The first step was taken when the people quarreled with King John (13th century) over taxation, and forced the Magna Charta from him as a concession to their strength. (Relate to the children the details of this episode.) The growing desire for a representative system did not receive legal recognition, however, for nearly a century, when the so-called model Parliament was called by Edward I (1295). Emphasize the thought that the present liberal and effective government of England is the result of centuries of growth, and that the struggle to secure it has made of the English people a race which is sturdy, independent, and self-reliant even to aggressiveness in its thinking and acting.

Lesson Unit IV: The picturesque and historical features for which the islands are famous.

READING LIST:

- Carpenter, Europe.....Chaps. V, VIII.
 **George, Little journeys (Scotland and Ireland).....pp. 13-18.
 King, Northern Europe.....(Parts).
 Companion Series, By land and sea.....pp. 6-11.
 Crosland, Stories of the City of London.....(Parts).
 Coe, Modern Europe.....Chaps. II, III, IV (Parts).
 Abbott, Rollo in London.....pp. 80-97.
 Knox, Great Britain and Ireland.....pp. 448-55.
 Irving, Sketch book.....(Parts).
 **Pratt, Stories of England.....pp. 67-227 (Parts).
 Shaw, Castle Blair.....(A story of Irish life).
 Stoddard, Lectures {vol. IX.....pp. 113 et seq.
 {Supplementary vol. I.....(Parts).
 **Wade, Our little Irish cousin.....

Suggestions: If the children have read Scott's *Lady of the lake* or any of the poems by Burns, give considerable time to the references to Scottish

scenery and to the homes of Burns and Scott. Besides this, read and talk about such historical structures as St. Paul's Cathedral, London Tower, and Westminster Abbey. Procure pictures wherever possible to illustrate your lesson. Stoddard's *Lectures* (vol. IX) will be found very helpful in this connection.

A STUDY OF THE GERMAN EMPIRE.

Map Locations (to be taught first): Rhine, Elbe, Oder, Vistula, Danube; Berlin, Hamburg, Dresden.

Lesson Unit I: Bismarck, and his great work in unifying Germany.

READING LIST:

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| Butterworth, Northern lands..... | pp. 80-83. |
| Browne, Chats about Germany..... | pp. 53-60. |
| Knox, Northern Europe..... | pp. 252-54, 304-305. |
| *Bismarck and the founding of the German Empire..... | Atlantic—82:411-24. |
| *Bismarck | Century—56:823-35. |
| *Bismarck, the man and statesman..... | Harper—98:321-28. |
| *A visit to Bismarck..... | Century—67:664-70. |
| *Bismarck as a national type..... | Atlantic—82:560. |
| Stoddard, <i>Lectures</i> , vol. VI..... | pp. 7-112 (Parts). |
| Parmele, A short history of Germany..... | (Parts). |

Suggestions: In your discussion of this topic compare the German states prior to Bismarck's time with the American colonies under the Articles of Confederation, bringing out the thought that with both there were rivalries, jealousies, and constant bickering. It was particularly marked at the time William I became king of Prussia (1861). He chose Bismarck as his chancellor. Bismarck's policy was twofold—to weld the German states into a nation, and to place the Prussian king at its head. Show how he worked out his problem, by (1) creating a great fighting-machine out of the Prussian army, which he employed to break the power of Austria, Prussia's strongest rival for supremacy; and (2) inaugurating a wave of national patriotism through the triumph of his armies in the Franco-Prussian war (1870-1871). Point out that at its termination (1871), amid unparalleled enthusiasm, William of Prussia was given the title of German Emperor, and the unification was complete.

Discuss the interesting details of Bismarck's life,—how as a student he was riotous and loved the fight; how he was possessed of keen insight into human nature; how he had an indomitable will, which never weakened in the face of opposition; how indifferent he was to popular opinion; and how strong his love was for his country and for his king. Discuss his policy of "blood and iron" and the tragic grandeur of his career. Collect stories from the references given above to illustrate these characteristic traits of the man.

Lesson Unit II: Germany's remarkable industrial expansion since she became a nation.

READING LIST:

- *Trotter, Geography of commerce..... pp. 280-87, 377-79.
 Carpenter, Europe..... pp. 186-215, 223-34.
 Herbertson, Europe..... pp. 59-64.
 Browne, Chats about Germany..... pp. 9-34.
 Tarr and McMurry, Bk. III..... pp. 277-78, 281-97.
 Knox, Northern Europe..... pp. 153-62.
 Butterworth, Northern lands..... pp. 15-276 (Parts).
 Butterworth, Around the world..... pp. 193-202.
 *German manufactures..... Chaut.—27:137-41.
 Stoddard, Lectures, vol. VI..... pp. 7-112 (Parts).
 *Adams, Commercial geography..... pp. 214-27.
 *Industrial advance of Germany..... No. Am.—166:54-65.
 *The economic power of Germany..... Chaut.—26:158-62.
 *Made in Germany..... Chaut.—35:127-33.
 The great gun king..... Cosmop.—33:358.
 Visit to Herr Krupp..... Outlook—70:222-27.
 Pyle, Otto of the silver hand..... (Fiction).
 *Dawson, German life in town and country..... (Parts).
 *Bigelow, The children of the nations..... pp. 111-26.
 *Webster, General history of commerce..... pp. 457-68.

Suggestions: Through the collateral reading cited above seek first to give the children some notion of the extent of Germany's industrial activity. To emphasize her commercial greatness discuss the following facts:

That Germany has mountains rich in silver, lead, zinc, copper and tin.

That it has more than a thousand mines of iron, and rich coal-fields near them. (Discuss the value of this proximity of coal and iron.)

That it has more than seven hundred factories which make machinery alone. One of these covers more than a thousand acres (Krupp works); another has built more than four thousand railroad locomotives; and another employs more than forty thousand men.

That it contains enormous beds of rock salt, one of which has been worked for fifty years and is not yet exhausted.

That she produces through her beet industry one fourth of the world's output of sugar.

That she has over four thousand ocean vessels engaged in the carrying trade, with a net tonnage of more than two million tons.

That four million acres are sown to wheat, eight millions to potatoes, and fourteen millions to rye, the latter being the staple breadstuff of the masses.

That Leipzig alone has five hundred booksellers, and one thousand printing-offices, the latter making more than sixty million books every year.

The teacher should work out some of the most obvious causes which have led to such great industrial expansion on the part of Germany. In working out these causes she will not only pass in review most of the facts which the authors have mentioned in the texts, but she will thereby avoid resorting to what would otherwise be little more than a memory-cram of facts which are largely unrelated and unorganized as therein given.

In discussing the causes for this rapid development of Germany the teacher should have the class turn to maps XIV and XV (appendix, advanced text), and observe that no other country is in such close touch with so many great commercial nations as Germany. Have them note that she touches Russia to the east, Austria-Hungary and Switzerland to the south, France, Belgium, and the Netherlands to the west, and Denmark to the north. Ask them to measure the distance between the ports of Germany and those of

the east coast of England, and estimate the time it will take to reach the British markets (about a day's journey). Thus it will be seen that Germany's central location is a most fortunate one. This matter of position is one of the most important as well as one of the most obvious causes of Germany's prosperity.

Another important factor in this matter is Germany's system of internal transportation. The maps already referred to can be made to answer, though they do not show clearly some of the points which we wish to consider. Note first that Germany has navigable rivers flowing into the North Sea and the Baltic to the north, and into the Black Sea to the south. By a close inspection of the maps it will be seen that the head-waters of these rivers and their tributaries are tied together by an elaborate system of canals. (The map, p. 127, advanced text, shows the canals more clearly.) Note further that this waterway system of Germany is also connected with a similar system in France, Belgium, and the Netherlands, making it possible, for example, for freight on the Vistula to be carried by internal waterways to Paris, Antwerp, and Rotterdam. Again, observe that the Danube River is connected by canal (Ludwig Canal) with the Rhine River, thus affording a direct water-route passing through Germany between the Black, the Caspian, the East, and the North Sea. (The benefit of a great body of transcontinental freight passing through a country should be dwelt upon here.) Similarly Germany is in direct contact with the Mediterranean Sea by a canal which connects the Rhone River and the Rhine. The Kaiser Wilhelm ship canal, between the North and the Baltic seas, cutting off two days' travel, and which has served greatly to stimulate traffic between the northern ports, should also be noted and discussed. In talking about the significance of this elaborate system of internal waterways bring out the fact that transport by water is the cheapest way to ship goods, as no roads have to be built. On the other hand, it is much slower than by railroad, and cannot be used for freight of a perishable nature. It is said that iron and steel is carried from the various foundries in the Ruhr Valley to the sea, a distance of some two hundred miles, by this means, for from eighty to ninety cents per ton. This is but little more than the average rate per ton-mile in the United States. Point out how such a system of cheap transportation will greatly stimulate industrial enterprises.

Besides the rivers, with their connecting canals, it should be noted that Germany is covered with a network of railroads which in importance and perfection of organization is excelled only in the United States. (See map XV, appendix, advanced text.) These systems of land and water transportation are so admirably organized and controlled that the one supplements instead of competes with the other, for the waterways are utilized by slow and heavy freights, while passengers and perishable freights are handled by the railroads. Ninety per cent of these systems are owned by the German Government, which accounts in a large measure for the cheapness of the rates. Discuss how such excellent transportation facilities, together with low rates of transportation, have served to stimulate industrial enterprises. Largely as

a result of such an excellent system of internal communication, the industrial life has been so stimulated and unified as to make Germany, in the language of Trotter, in his *Geography of Commerce* (p. 285), "One vast workshop."

Another factor in this industrial expansion which cannot be overlooked, for in reality it conditions all the others, is the character of the people themselves. As Carpenter, in his *Geographical reader* (Europe, p. 190), very aptly says, "But something more than fertile soil, rich mines, and network of railroads, good seaports, and navigable rivers is needed to make a country great in manufacture and commerce; it is necessary to have thrifty people with a turn for trade." As a matter of fact, the Germans as a people combine all those qualities of perseverance, frugality, thoroughness in detail, and shrewdness in driving bargains which characterize the good trader.

At this point have the children read the references cited which bring out forcibly these traits of the Germans, and also the part which the nation plays in the commerce of the world.

Their foresight and thrift as well as progressiveness is shown in the encouragement bestowed by the state on the higher commercial and technical education of the people. In 1884 it is reported that the total attendance at the German polytechnic schools was under two thousand. In 1896, in one of the schools alone there were in attendance more than three thousand students. The superior knowledge and technical skill thus gained have been no small factors in putting Germany in the industrial position which she now occupies. Under such trade stimulus Germany is fast becoming a nation of colonies. It has colonies in Africa and China, and owns besides many islands in the Pacific. Its merchants have established business houses in all parts of the world, and in the colonies of other nations as well as in their own. This means that Germany is destined to play a constantly increasing part in the domain of world commerce.

Point out in conclusion how remarkable all this is in view of the fact that previous to 1871 Germany consisted of some twenty-six independent duchies which were frequently at war with each other.

Lesson Unit III: The Rhine: As a trade route and in song and story.

READING LIST:

- *The Rhine country..... Chaut.—26:467-74.
- *Down the Rhine..... Century—61:206-17, 682-85, 819-31.
- *A trip down the Rhine..... Chaut.—35:254-70.
- The Rhine..... Stoddard Lectures, vol. VII.
- Carpenter, Europe..... pp. 234-48.
- Youth's Companion series, Northern Europe..... pp. 104-08.
- Herbertson, Europe..... pp. 68-74 (Parts).
- Butterworth, Northern lands..... pp. 133-34, 142-52, 154-57, 161-64.
- Browne, Chats about Germany..... pp. 67-127.
- Coe, Europe..... pp. 167-86.
- Tarr & McMurry, Bk. III..... pp. 297-300.
- *Andrews, Seven little sisters..... pp. 85-97.
- Neally, To Nuremberg and back..... (Parts).
- Knox, Northern Europe..... pp. 164-72, 182-90.
- Abbott, Rollo on the Rhine..... (Parts).
- *Wade, Our little German cousin..... (Parts).
- Guerber, Legends of the Rhine..... (The story).
- Ragozin, Siegfried..... (The story).
- Stoddard, Lectures, vol. VII..... pp. 5 et seq.

Suggestions: Germany is widely celebrated for the beauty of the scenery of the River Rhine, for the castles, for the quaint villages, and for the picturesque cathedrals which line its banks. It would be both interesting and profitable to spend some time reading and talking about trips which travelers have taken on it. First require the children to trace out the river on a map, noting that it rises high up in the Alps, that it has cut its way through the hills of the south German plateau, and that on its lower course it has deposited a broad flood plain which constitutes one of the most fertile agricultural regions in all Europe. Review what has already been presented regarding the importance of the Rhine as a trade route.

Having done this, procure as many of the references cited as possible, organize the material which they contain, and either tell the children the story, read to them, or permit them to read for themselves. The teacher should, in addition to showing the children the pictures given in these references, collect a scrap-book of magazine pictures illustrating in greater variety scenes along the river.

In addition, if time permits, relate the interesting details of the famous legends of the Rhine—legends which in some form have found their way into the great operas and writings of the world. Among the most famous are the following: The Lorelei, Siegfried and the Dragon, the legend of the Maus Tower at Bingen, and the Bells of the Rhine. In this connection it would be interesting and profitable to discuss the life and work of Richard Wagner, and particularly the use which he made of some of these legends in his great operas.

A STUDY OF THE KINGDOM OF THE NETHERLANDS.

Map Locations (to be taught first): The Netherlands, Holland; Amsterdam, The Hague, Baltic Sea, North Sea; Rhine River, Zuyder Zee.

Lesson Unit I: The country: Its people and their occupations.

READING LIST:

- *Adams, Commercial geography.....pp. 250-57.
- *Trotter, Geography of commerce.....pp. 274-79.
- *Carpenter, Europe.....pp. 133-56.
- Youth's Companion series, Northern Europe.....pp. 18-38.
- Companion series, By land and sea.....pp. 12-15.
- Knox, Northern Europe.....Chaps. I-VIII (Parts).
- *Shaw, Big people and little people of other lands.....pp. 83-91.
- Knox, Siam and Java.....pp. 326-29, 377-86, 425-28.
- Coe, Modern Europe.....pp. 133-54.
- *Hoagh, Dutch life in town and country.....Chaps. I-III, VI, VIII, XXI.
- Benedict, Stories of persons and places in Europe.....pp. 183-206.
- Johonnot, Ten great events in history.....pp. 145-65.
- Dodge, Hans Brinker.....(Fiction).
- Dodge, Land of pluck.....(Stories).
- *Chance, Little folks of many lands.....pp. 57-52.
- *Chamberlain, How we are clothed.....pp. 21-24.
- *Bigelow, The children of the nations.....p. 153-83.
- *George, Little journeys (Holland, Belgium and Denmark).....(Parts).
- Stoddard, Lectures vol. VII.....pp. 173 et seq.
- *Webster, General history of commerce.....pp. 475-77.

Suggestions: Turn to the map on page 127 of the advanced text. Observe from the shading that much of the Netherlands is below the sea-level, while only a small part of it, in the extreme east, reaches an elevation of one thousand feet. With the references cited above as a basis, discuss the methods by which the land has been reclaimed. In this connection talk about the latest enterprise, which is to build a dike across the entrance to the Zuyder Zee, pump out the water, and thus transform it into a fertile plain. (See McClure, 21: 648-658; Pop. Sci. Mo., 60: 551-555; Nature, 65: 275-277.) Estimate how much the tillable country would be increased in area by this undertaking. Observe that the Rhine is the chief river of the region. Point out that in reality much of the area of the Netherlands is a delta composed of the soil washed down and deposited by this river. As the Netherlands has an abundant rainfall and a temperate climate, the conditions are suitable for agricultural pursuits. Bring out in your discussion of the references that dairying and agriculture are the chief occupations of the people; that in fact the Netherlands exports to England such quantities of the products of the dairy that she has been frequently called "The Dairy Farm of Great Britain."

Bring out next the commercial importance of the Netherlands, her fortunate situation, the extent and richness of her colonial possessions (see "Study of the East Indies," p. 82), and that her chief revenue lies in the import and export trade of these colonies. Bring out the excellence of her system of internal transportation, and the value of her forwarding trade with Germany, Switzerland, and other interior countries of Europe, which arises from the fact that the lower portions of the Rhine, the Meuse, and the Scheldt, flow through Holland. Show how all these have been factors in giving Holland her great commerce, which in point of value is out of all proportion to her size.

A STUDY OF THE KINGDOM OF DENMARK.

Map Locations (to be taught first): North Sea, Baltic, Wilhelm Ship Canal; Copenhagen; Norway, Sweden, Germany.

Lesson Unit I: The people and industries of Denmark.

READING LIST:

- *George, Little journeys (Denmark)..... (Parts).
- Carpenter, Europe..... pp. 156-63.
- Coe, Modern Europe..... pp. 119-32.
- Butterworth, Northern lands..... pp. 277-87.
- Knox, Northern Europe..... pp. 399-448.
- Benedict, Stories of persons and places in Europe..... pp. 85-100.
- *Brochner, Danish life in town and country..... (Parts).
- Herbertson, Europe..... pp. 1-26 (Parts).
- King, Northern Europe..... pp. 297-301.
- *Webster, General history of commerce..... p. 484.
- *Trotter, Geography of commerce..... pp. 307-308.
- *Adams, Commercial geography..... pp. 264-67.

Suggestions: Point out that in many respects Denmark is similar to the Netherlands. It is a low country, though not below the sea-level; it is part of

the great low plain of North Europe; its principal industries are likewise dairying and agriculture, and its climate is very similar to that of the Netherlands. Work these points out by reference to maps. (See advanced text, p. 127.)

Bring out, however, that in many other important particulars the country differs from the Netherlands. Its people are more closely allied to the Norwegians than they are to the Dutch, for they speak virtually the same tongue. Then, the land as a whole is not so fertile, for there are regions consisting largely of bogs, sandy flats, and heather-covered plains. Hence it lacks the natural advantages which the Netherlands enjoy. Neither is Denmark so fortunately situated for participation in the forwarding trade of the world. In this connection compare her colonial possessions with those of the Netherlands, noting that they are limited to Greenland, Iceland, and the small islands of St. Croix, St. Thomas, and St. John, in the West Indies, which are relatively unproductive and unimportant. In comparison with the dependencies of the Netherlands, they are of little commercial value.

A STUDY OF THE KINGDOM OF NORWAY AND SWEDEN.

Map Locations (to be taught first): Baltic, North Sea, Atlantic, Arctic, Skagerrack; Kiølen Mountains; Christiania, Stockholm; Norway, Sweden.

Lesson Unit I: Once the home of the Vikings, a vanished race of sea fighters.

READING LIST:

- Longfellow, *Skeleton in armor*.....(Poem).
- * Andrews, *Ten boys*.....Wulf the Saxon boy.
- * Kenyon, *Scandinavia*.....Bulletin No.V, S.F. State Norm. Series.
- Du Chaillu, *Land of the long night*.....Chap. XXX.
- Davis, *Norway nights and Russian days*.....pp. 45-52.
- Hall, *Viking tales*.....(Parts).
- Ragozin, *Frithjof, Viking of Norway*.....(A story).
- Griffis, *The romance of discovery*.....pp. 28-44.
- * George, *Little journeys (Norway and Sweden)*.....(Parts).
- Stoddard, *Lectures, vol. I*.....pp. 9 et seq.
- * Webster, *General history of commerce*.....pp. 483-84.
- * Trotter, *Geography of commerce*.....pp. 305-307.
- * Adams, *Commercial geography*.....pp. 258-61.
- Du Chaillu, *Ivan the Viking*.....(Fiction).
- Ballantyne, *Erling the bold*.....(Fiction).

Suggestions: In your discussion of this topic try to give the children a realization of the character and hardihood of the Vikings. Talk about their rowboats and weapons, about how they coasted along the shores of the Baltic and North Seas, how they forced a settlement in France which came to be called Normandy, and from which, at a later time, came the Normans who under William the Conqueror defeated Harold at Hastings, thereby establishing themselves in England; how other bands pushed out to the west, reaching Iceland, Greenland, and the main land of North America before the time of Columbus. Correlate this part of the discussion with the history stories the children no doubt will have had at some previous time.

Lesson Unit II: The climate and physical features of Scandinavia.

READING LIST:

- Coe, Modern Europe.....pp. 92-94, 107-112, 118.
 Johannot, Geographical reader.....pp. 175, 190-97, 401-407.
 Carpenter, Europe.....pp. 104-66.
 Ballou, Footprints of travel.....pp. 235-36, 260, 265-66, 342.
 Tarr and McMurry, Bk. III.....p. 257.
 **Pratt, Northern Europe.....pp. 73-77, 80-84.
 Youth's Companion series, The wide world.....pp. 88-95.
 Companion series, By land and sea.....pp. 53-59.
 Herbertson, Europe.....pp. 1-29.
 *Kenyon, Scandinavia.....Bulletin No.V, S.F. State Norm. Series.
 Stoddard, Lectures, vol. I.....pp. 9 et seq.

Suggestions: The best way to bring out the characteristics of the Scandinavian scenery will be through an examination of any good map of the peninsula followed by a reading of the references which best bring out these features.

In discussing the climate point out that the winters on the Norwegian side of the peninsula are much milder; the fiords, though in the most northerly parts, are open all winter.

Take up a discussion of the reasons for the relatively mild climate of this region, but do not make the mistake of explaining it on the basis of a branch of the Gulf Stream sweeping up the coast. Meteorologists are now insisting that the popular conception of the Gulf Stream as it applies to Norway is erroneous, and that in reality the Gulf Stream at this point is nothing more than a great ocean drift, and that the mild temperature of Western Europe is due rather to the prevailing ocean winds, and that in fact any region whose winds are universally from the sea will have its climate perceptibly tempered. (The teacher will find this discussed in the following: Scribner's, vol. XXI, "The Gulf Stream"; Bulletin American Geographical Society, July, 1901, "Certain Persistent Errors in Geography.")

Lesson Unit III: The character of the people: their life and occupations.

READING LIST:

- Ingersoll, The book of the ocean.....pp. 231-48 (Parts).
 **George, Little journeys (Norway and Sweden).....(Parts).
 Martineau, Feats on the fjord.....(Fiction).
 Ballou, Footprints of travel.....pp. 240-41, 245-46, 255-56, 270-73.
 *Kenyon, Scandinavia.....Bulletin No.V, S.F. State Norm. Series.
 Coe, Modern Europe.....pp. 93-101, 115-16.
 Carpenter, Europe.....pp. 178-80, 182-84.
 Johannot, Geographical reader.....pp. 193-97, 401-407.
 Butterworth, Northern lands.....Chap. XVI (Parts).
 Youth's Companion series, Northern Europe.....pp. 11-17.
 **Wade, Our little Norwegian cousin.....(Parts).
 Benedict, Stories of persons and places in Europe.....pp. 61-84.
 Du Chaillu, Land of the long night.....(Parts).
 King, Northern Europe.....pp. 269-96.
 Knox, Northern Europe.....pp. 448-506.
 Boyesen, Modern Vikings.....(Parts).
 State series, Fourth reader.....pp. 53-63.
 Stoddard, Lectures, vol. I.....pp. 9 et seq.
 Boyesen, Norseland tales.....
 Boyesen, Boyhood in Norway.....

Suggestions: In regard to the character of the people and their industries, it should be pointed out that the long winters and the roughness of the country preclude any farming of importance, so that the people of the north

have no choice but to take to fishing and living on reindeer, but that in the south, particularly in Sweden, there is considerable good farming land, though it is not great enough in area to give all the breadstuff which the inhabitants need. It should be pointed out, too, that dairying is a very important industry in this region; Sweden exports millions of pounds of butter yearly to Great Britain; timber, fishing, and the mining of iron ore, it should be mentioned, are very important industries, and give employment to many thousands of men. In one fishing center alone—the Lofoden Islands—there are forty thousand men and seven thousand vessels engaged, in the month of March, in catching and curing cod and herring.

A STUDY OF THE COUNTRIES OF THE DANUBE.

(AUSTRIA-HUNGARY AND THE MINOR BALKANS.)

Map Locations (to be taught first): Austria-Hungary, Roumania, Servia, Tyrol, Montenegro, Bulgaria; Danube; Vienna, Belgrade; Alps, Carpathian Mountains.

Lesson Unit I: The great diversity of the inhabitants and the characteristic products of the region.

READING LIST:

- Carpenter, Europe.....pp. 171-72, 273-80, 293-309.
 Coc, Modern Europe.....pp. 357-59.
 *Palmer, Austro-Hungarian life in town and country..Chaps. I, IV, VII, XII.
 Cole, The gipsy road.....(Parts).
 Knox, Central Europe.....pp. 432-532.
 Benedict, Stories of persons and places in Europe....pp. 252-75.
 Youth's Companion series, Under sunny skies.....pp. 123-31.
 Herbertson, Europe.....pp. 112-42, 142-164.
 Stoddard, Lectures, vol. VI.....pp. 115-224 (Parts).
 *Webster, General history of commerce.....pp. 478-80.
 *Trotter, Geography of commerce.....pp. 294-98.
 *Adams, Commercial geography.....pp. 277-87.

Suggestions: Review the history of these states treated in the "Study of European and Asiatic Turkey," p. 43.

As these countries are almost entirely comprised in the Danube Valley, and as they have many characteristics in common, they may as well be considered together.

Owing to the fact that the region of the Danube has been for centuries the seat of invasion and counter-invasion by races from Asia as well as from Europe, more languages are spoken to-day among the nations of the Balkan Peninsula and the Danube Valley than in any other region of similar area in the world.

All the races of Europe and some of Asia are represented here. There are Jews, Turks, Greeks, Slavs, Armenians, Germans, Latins, and peoples closely related to the Mongolians in considerable numbers; in only three provinces of Austria is one language (German) generally spoken. In Hungary there are many villages where as many as three distinct languages are in general

use. It is said that in Austria there are thousands of schools in which the Czech tongue is taught, and other thousands where the language of the Slavs is spoken. Point out also that there is as great a dissimilarity in religion, in ideals of government, in customs, in standards of living, as there is in language, and that in consequence the people are jealous and suspicious of each other, making it an exceedingly difficult matter to bring these people under a common rule. The mountainous character of the country, and the isolation which its valleys give, has so accentuated these racial differences that it is a surprise that such people with little in common save political antagonism can be held together under the same rule. The explanation of the fact that Austria-Hungary, a great area, near in size to Russia, is under one rule, however, lies in the fact that the basin of the Danube is a great food-producing country, and also that it has long been the natural trade route between Asia and the countries of the North Sea. These characteristics have given the countries of Austria and Hungary a certain amount of commercial unity which has served in a measure to overcome the antagonisms engendered through race hatred.

Amplify somewhat the two thoughts suggested in the last paragraph,—i. e. that the Danube basin is a great food-producing region, and that it is the natural trade route between Asia and the North Sea countries.

In connection with the second point, that the Danube has been for centuries the natural overland trade route between Asia and the North Sea, review the discussion the class has already had regarding the canal connection between the Danube and the waters flowing into the North Sea. (See "Study of the German Empire," p. 18.)

Bring out in your discussion of the references cited the following facts:—

That no other region of Europe has such a mixture of races as the Danube Valley.

That, by means of canals, freight can be carried entirely by water from the Danube to the North Sea.

That it was the great trade route between Europe and Asia during the Middle Ages.

That the rich valley of the Danube is largely a food-producing region, in which wheat is the chief product.

That those portions of Austria-Hungary lying outside the Danube Valley contain large mineral deposits.

A STUDY OF THE REPUBLIC OF SWITZERLAND.

Map Locations (to be taught first): Alps; Bern, Zurich, Geneva; St. Gotthard Pass.

Lesson Unit I: The scenery of Switzerland.

READING LIST:

Carpenter, Europe.....	pp. 249-60.
Herbertson, Europe.....	pp. 94-109.
Coe, Modern Europe.....	pp. 225-49.
Stockton, Personally conducted.....	pp. 119-37.
Youth's Companion series, Northern Europe.....	pp. 78-94 (Parts).
*Shaw, Big people and little people of other lands.....	pp. 77-82.
Headley, Mountain adventures.....	pp. 1-145. (Parts).
*George, Little journeys (France and Switzerland).....	(Parts).
Stoddard, Lectures, vol. I.....	pp. 121 et seq.

Suggestions: It will be impossible to give the children any adequate notion of the grandeur of Alpine scenery, except through the generous use of interesting and detailed description. Adventures which mountain-climbers have experienced, and pictures which in any way show the magnificence of the glaciers, the mountains, and the valleys of Switzerland should be employed. The effort which the teacher expends in collecting materials of this sort will be amply repaid by the interest which it will arouse.

Lesson Unit II: The history and chief characteristics of the Swiss people together with their government.

READING LIST:

Carpenter, Europe.....	pp. 260-71.
Knox, Central Europe.....	pp. 276-82.
Coe, Modern Europe.....	pp. 236-38.
Youth's Companion series, Northern Europe.....	pp. 95-103.
Knox, Central Europe.....	Chaps. XV, XVI (Parts).
*Story, Swiss life in town and country.....	Chaps. I, II, III, IV, X, XIII.
*Bouvet, Bernardo and Laurette.....	(A story).
Morris, Historical tales: German.....	pp. 145-57, 165-70.
*——, Konrad, the little Swiss boy.....	(A story).
Stoddard, Lectures, vol. I.....	pp. 121 et seq.
*Wade, Our little Swiss cousin.....	
Haaren and Poland, Famous men of the Middle Ages.....	pp. 226-32.

Suggestions: In your discussion of these references bring out the following facts:—

That Switzerland is the oldest republic now in existence.

That the country consists of twenty-five cantons, or districts.

That each canton is a state with its own government and constitution, and having a representation in a national congress.

That every citizen has a vote.

That two important and unusual rights exist,—the Referendum, by which the people can have proposed laws submitted to a general vote of the country, and the Right of Initiative, by which a group of citizens may at any time propose new measures and submit them to a general vote.

Compare the Swiss form of government with our own in these respects. Next bring out something of the history of the struggle which these people have experienced in preserving their liberty and independence as a nation. Relate in this connection the story of William Tell—not as a true story, but one which will illustrate the character of the people. Tell also of the famous battle of Morgarten, wherein thirteen hundred mountaineers overwhelmed ten times their number—the flower of the Austrian army—and established their independence. Tell the story of the Lion of Lucerne. This statue, carved by the famous Iclander, Thorwaldsen, commemorates the great bravery of the Swiss people.

Lesson Unit III: The industries of Switzerland and her commercial position.

READING LIST:

- Carpenter, Europe..... pp. 260-71 (Parts).
 Companion series, By land and sea..... pp. 42-46.
 Knox, Central Europe..... Chaps. XVII, XVIII, XX.
 *Story, Swiss life in town and country..... Chaps. II, VII, VIII, IX.
 **George, Little journeys (France and Switzerland).... (Parts).
 Stoduard, Lectures, vol. I..... pp. 121 et seq.
 Frith, The romance of engineering..... pp. 289 et seq.
 *Webster, General history of commerce..... p. 483.
 *Adams, Commercial geography..... pp. 268-76.
 *Trotter, Geography of commerce..... pp. 288-89.

Suggestions: From the map on page 127 of the advanced text note that Switzerland has on her borders the great trading nations of Germany, Austria, Italy, and France, with which she is in excellent communication by good wagon-roads over the Alpine passes, and also by an unsurpassed system of railroads. The railroad mileage in Switzerland, in proportion to area, is greater than in any other country in Europe, Belgium excepted. The rates are also very cheap. A ticket costing \$10.50 entitles one to travel over the railroads and lake steamers as much as he wishes to for thirty days. (Adams, Commercial Geography, p. 273.) The cheapness of the rates, and the excellence of the railroads, together with the many scenic attractions which Switzerland affords, have built up a very large and lucrative tourist trade. It is said that more than a million travelers visit Switzerland annually, and that in 1898 they left thirty-eight millions of dollars in the country. Indeed, the foreign tourist has come to be one of the chief sources of income to the people of Switzerland. However, because nearly all the supplies which the country sells the tourist are imported, not all of the money which is received is kept.

As regards the industries of the country, point out that on account of its mountainous character Switzerland is not an agricultural country, although the climate and rainfall are suitable. Most of its breadstuff is therefore imported. Cattle-raising and dairying are the distinctive Alpine industries. It will be interesting to bring out in this connection how cattle follow the snow-line as it recedes in the summer. "As the snow melts in the spring, tens of thousands of cows are driven to the highlands to feed there until the frost compels them to return to their winter provender of hay; the herder milks the cows and makes cheese and butter, cheese being the principal output. About once a fortnight supplies are taken to the herders, and the cheese and butter are carried down to the markets while the farmers in the plain are making hay for winter fodder." (Adams, Commercial Geography, p. 270.) Bring out as a summary that, with the exception of dairy products, Switzerland imports most of her food; that over a third of the people are engaged in manufacturing articles which require skillful handwork; and that each industrial center has its special line of manufacture in which it excels.

A STUDY OF THE KINGDOM OF BELGIUM.

Map Locations (to be taught first): Netherlands, Germany, France; English Channel, North Sea; Brussels, Ghent, Antwerp.

Lesson Unit I: Belgium's occupations and place in foreign trade and commerce.

READING LIST:

- Companion series, By land and sea..... pp. 16-21.
 Carpenter, Europe pp. 125-33.
 Youth's Companion series, Northern Europe..... pp. 39-45.
 Coe, Northern Europe..... pp. 154-67.
 *Boulger, Belgian life in town and country..... Chaps. I, VI, VII, VIII, XIX, XXI.
 Butterworth, Around the world..... pp. 222-33.
 Butterworth, In Europe..... pp. 205-25.
 Benedict, Stories of persons and places in Europe..... pp. 207-23.
 *Eggleston, Strange stories from history..... pp. 88-98.
 *Johannot, Stories of other lands..... pp. 87-95.
 *George, Little journeys (Holland, Belgium and Denmark) (Parts).
 Stoddard, Lectures, vol. VII..... pp. 113 et seq.
 *Webster, General history of commerce..... pp. 477-78.
 *La Ramé, The dog of Flanders.....

Suggestions: Have the children turn to the map on page 131 of the advanced text, locate Belgium, and estimate its area in square miles. Turn to the table on page 157 and see how nearly correct the estimates are. Compare its true area with the area of California (about 1 to 14); compare its population with that of California (about four times as great); tell the children that it is about the most thickly populated region of equal area in the world, having an average density of five hundred and eighty-eight people to the square mile. Have the children estimate a square mile in the neighborhood of their school, and think how thickly settled it would be with nearly six hundred people living on it. Read to them chapter XIV of Carpenter's Europe (pp. 216-221). Discuss the reasons why Belgium with such a small area can support such a large population. From the references just cited, the children will see that it is partly because the land is so fertile, but largely because the people are so thrifty, skillful, and industrious. Although the references thus given emphasize Belgium's agricultural activity, bring out the fact that the country is primarily a mining and manufacturing one, and that in reality agriculture is a subordinate industry. Examine the map on page 131 of the advanced text again; note that while much of its area is a low plain, yet toward the south and east it is crossed by a belt of highlands extending from Germany to France. This is a region of coal-fields and iron deposits which have given rise to a great variety of manufactures. Firearms are manufactured in one of the cities, steel and machinery construction are carried on in several others, and cutlery on a large scale in yet other places. Further towards the coast there are great factories employing vast numbers of people, and manufacturing linen, woolen, and cotton goods, beautiful laces, and a great variety of pottery, porcelain, and glassware. So great are these industries, that there are more than one million of people employing the best

machinery turning out manufactured products, which for the most part are destined for export. (Adams, Commercial Geography, p. 245.) Discuss the causes which have made the Belgians a manufacturing people, bringing out such most obvious ones—that she occupies a most fortunate position in the markets of the world; that she has a great number of skilled laborers who work for low wages, and that she has rich mines of coal and iron; and that, besides, she has been a manufacturing people ever since the Middle Ages. The excellence of her transportation system, canals, and railways has also been an important factor in her commercial and industrial development.

It should be noted besides that Belgium for her size has taken an important place in foreign trade and commerce. Several circumstances have favored her growth in this regard. In the first place, while political feuds culminating in the Franco-Prussian war were undermining French influence in Europe, Belgium was attracting much trade to Antwerp by liberal tariffs; great public works, such as deepening the Scheldt, building numerous canals, and developing a splendid system of railroads, were inaugurated. Then, too, the opening of the St. Gotthard railroad tunnel tended to give Belgium the transportation of large quantities of freight of her own factories and from foreign countries destined for the Orient by way of Italy. (Webster, History of Commerce.) Again, owing to her fortunate situation between great commercial nations she has built up a big forwarding business. Thus in 1898 seventy-six million dollars' worth of merchandise passed through the country on its way to Germany, Switzerland, and other continental countries, and sixty-five millions of dollars' worth passed out, going to Great Britain and the United States. Point out also in this connection that the Belgian ruler is the sovereign of the Kongo State in Africa, having been chosen as ruler by the European powers, and that the development of this region will materially enhance the value and importance of Belgium's foreign trade.

A STUDY OF THE REPUBLIC OF FRANCE.

Map Locations (to be taught first): Belgium, Germany, Switzerland, Italy, Spain; English Channel, Bay of Biscay, North Sea, Mediterranean; Paris, Marseilles, Lyons; Pyrenees Mountains, Alps; Seine, Loire, Garonne, Rhone.

Lesson Unit I: Occupations and life of the French people.

READING LIST:

- *Adams, Commercial geography..... pp. 228-41.
- *Trotter, Geography of commerce..... pp. 261-68.
- Carpenter, Europe..... pp. 85-106. 185, 186.
- Companion series, By land and sea..... pp. 22-26.
- *Miln, Little folks of many lands..... pp. 112-37.
- Knox, Central Europe..... Chaps. I-XIV (Parts).
- Coe, Modern Europe..... pp. 240-66, 266-78.
- Butterworth, In Europe..... pp. 226-303.
- Knox, Southern Europe..... pp. 443-92.
- Brooks, Boy of the first empire..... (Fiction).
- **Chamberlain, How we are clothed..... pp. 85-98

- *Lynch, French life in town and country..... (Parts).
 *Laurie, Schoolboy days in France..... (Fiction).
 *George, Little journeys (France and Switzerland).... (Parts).
 *Stoddard, Lectures, vol. V..... pp. 5 et seq., 127 et seq.
 *Webster, General history of commerce..... pp. 469-72.

Suggestions: Bring out in discussion of these references that France is both a farming and a manufacturing country, and that the people of the country are pretty equally divided between the two lines of industry. Turn to the map on page 131 of the advanced text and note that a line drawn diagonally across France from its extreme southwestern point in a northeasterly direction to a point where Belgium intersects France divides the country physiographically into two distinct areas. That to the west consists of rolling plains less than six hundred feet above the sea-level. Tell the children that this constitutes the great farming area of France. Point out that in this region there are as many farms as there are in the whole United States, though France is smaller than the single State of Texas, but that the farms are very much smaller, averaging about fifteen acres each. (Adams, Commercial Geography, p. 201.) Mention that the farms in Great Britain are all in the hands of some twenty thousand men, for the most part men belonging to the nobility, while the farms in France, about twice the area of Great Britain (see advanced text, p. 128), are owned by a million proprietors, many of them belonging to the peasantry. (Carpenter, Europe, p. 88.) An interesting contrast between methods of farming is also to be noted in connection with the fact that the French farmer does not live on his farm, but in villages, from which he goes out early in the morning, and to which he returns in the evening after his day's work is done. Emphasize the fact that though these farms produce a great variety and abundance of agricultural products, such as sugar-beets, potatoes, and grain, wheat is the most important. Indeed, France produces more of this grain than any other nation in the world, with the exception of the United States and Russia. (Chisholm, Europe, p. 404.) However, as the peasants eat wheat bread instead of rye bread, as do the Germans, France is unable to produce enough of the grain for home consumption, and is forced, therefore, to import from the United States and Russia some thirty-three million bushels yearly.

The region east of the diagonal line across the country is the highland region of France. Bring out from the references already cited that this region contains both coal and iron, though in less quantities than either Great Britain or Germany; that as a result of the proximity of the two, numerous iron and steel works have been developed; that the foot-hills of the region furnish pasturage for thousands of cattle, sheep, and horses; and that the valleys and foothills of the central and southern part constitute one of the greatest wine-producing regions in the world. The Rhone Valley, lying to the south and east of the diagonal line already suggested, is the seat of another very important industry,—i. e. sericulture. Point out that this industry is limited to this region, largely because the mulberry-tree, the leaves of which constitute the food of the silkworm, grows best in this valley. In connection

with these last two industries, point out that about fifteen years ago French vineyards were subjected to a very serious epidemic, phylloxera, which greatly reduced her output, but by grafting upon stock imported from America she has now overcome this terrible pest. Her production of wine has again reached its normal level, in 1900 nearly two billion gallons being produced. Point out also that while France once controlled the silk markets of the world, in recent years, owing to the competition of the United States, Great Britain, and Germany in its manufacture, and also to a destructive disease of the silkworm, the industry in France has greatly declined. (Adams, *Commercial Geography*, p. 228.) In discussing this last industry, bring out the extent to which the French people are engaged in textile manufacture, among the most important manufactures after silk being the manufacture of cotton, woolen, and linen goods. In these industries, which require good taste, creative skill, and manual dexterity, France takes first place among the nations of the world. In textile manufactures more than one million people and upwards of one hundred thousand looms are employed. (Redway, *Commercial Geography*, p. 323.)

As a summary and review of what has already been presented and as a preparation for what is to follow, have the children shade in an outline map of France, showing the following regions:—

1. Highland region.
2. Agricultural region.
3. Wheat and grain region.
4. Region of coal and iron.
5. Grape-growing region.
6. Silk-producing region.
7. Region of textile manufactures (evenly distributed over the entire country).

Lesson Unit II: France's place in international commerce.

READING LIST:

*Adams, *Commercial geography*.....pp. 228-41.

*Webster, *General history of commerce*.....pp. 469-72.

*Trotter, *Geography of Commerce*.....pp. 261-68.

Suggestions: On this point there is little or no reading which the teacher can place in the hands of the children. The most she can do is to talk with them on the topic. About the time of the Franco-Prussian war (1870-1871—Tell the children the result of the war as regards French territory) France ranked second among the great nations of the world, but now she has ceased to be a really great competitor in the world of trade, being surpassed by the United States, by Germany, and by Great Britain. (Webster, *History of Commerce*, p. 470.) This change from the second to the fourth place is due partly to the fact that her competitors have developed commercially at a much more rapid rate than has France, and, as has already been brought out,

partly because she has in her industries put her attention on quality rather than on quantity.

Having given the children in some such manner a conception of what France stands for in the commercial and industrial world, it will now be well for the teacher to work out for the children a few of the most obvious causes which have put her in the place she occupies in the race for commercial supremacy:—

(a) Her admirable situation for commercial activity should first of all be noted. Turn to map XV (appendix, advanced text); observe that the English Channel lies along its northern border, across which British ports can be reached in a few hours; that her proximity to the North Sea gives her access to all the ports of Northern Europe; that as the Atlantic Ocean washes her shores to the west, her trade routes to South American and African ports are shorter than those of England, Germany, or the Netherlands (map p. 154); and that as more than one half of her southern country lies on the Mediterranean, she has unexcelled facilities for trade with Northern Africa and the East. (Map, p. 154, advanced text.) These points should be brought to the attention of the children of the upper grades, and their bearing on France's position among the leading nations of Europe discussed.

(b) The excellence of a country's means of internal transportation has very much to do with that country's industrial development. The best map from which to work out this point is the one on page 131 of the advanced text.

Compare France with Germany in this respect, noting that while France's system of internal waterways is by no means the equal of Germany's, still it is an excellent one, for she has one hundred rivers which are more or less navigable, and in connection with them a complete system of canals which join those of Germany, Belgium, and the Netherlands. Note particularly one of the most important of these canals, the one joining the Rhone and the Rhine. In consequence of this connection, freight from the Mediterranean can be floated through both France and Germany to the ports of the North Sea; canals also, it should be noted, connect the Rhine with the Loire and the Seine. Another important canal is the one which connects the Mediterranean with the Garonne and the Bay of Biscay. This canal saves a voyage of two thousand miles around the Spanish Peninsula. Besides these waterways, it can be seen from map XV (appendix, advanced text) that France has an excellent railway system. In this connection discuss the value of the railroad tunnel through the Alps, near Mt. Cenis, which connects France with the rich Italian valley of the Po.

(c) The climate and physical features of France have a great bearing in determining the occupation of the people.

Review the structural features of France already presented. Discuss the effect on the climate and rainfall of the arrangement of mountains. The point here is, that since the mountains are all on the eastern border of the

country, there is no obstacle which prevents the free passage across France of the warm moisture-laden winds from the Atlantic, which prevail for the most part. This arrangement insures an abundance of moisture for agricultural purposes for those regions which are tillable. In regard to the temperature of the country, turn to maps V, X, and XIV in the appendix of the advanced text and, by an examination of the isothermal lines, note that Paris is in about the same latitude as Newfoundland; compare the temperature of the two places; compare Paris with Boston, which is far to the south; note that the temperature of Paris is about that of San Francisco, which is several degrees south. In a similar way compare the temperature of the British Islands and of Germany with the points already mentioned. The conclusion is of course that the temperature of these regions of Western Europe is much milder and more equable than that in the same latitudes in North America. Discuss the effect on occupations. Also take up at this point enough physical geography to explain the difference.

(d) The French policy of steadily expanding her colonial territory bids fair to increase materially the importance of France's foreign trade.

Point out that France, particularly after the Franco-German war, began seeking to retrieve her territorial losses by adopting a policy of colonial expansion. Since that time she has steadily, through exploration and conquest been adding to her foreign possessions. She has lost her influential position in Egypt, but Algeria has been better developed and Tunis placed under her protectorate. She has extended materially her rights in Indo-China and re-established certain ancient claims in Madagascar. In a period of sixteen years (1882-1898) she added in Asia and Africa alone over one million square miles of territory and thirty-two millions of people. Her total colonial possessions embrace about four and one-half million square miles and fifty-six millions of people. (Webster, *History of Commerce*, p. 471.) In spite, however, of the extent of this enormous domain, France has not yet profited greatly by it. Though parts of the territory are rich in native resources, much of the region has not yet been developed. In its possibilities, however, it gives promise of future trade development which will prove of great value to the mother country. From the map on page 154 of the advanced text, work out the territory which belongs to France, and on an outline map of the world have the children shade in those regions which comprise France's colonial domain.

These factors of geographical situation, of means of internal transportation, of climate, rainfall and structure, and colonial expansion, together with the native thrift of the people themselves, have been by no means the only factors, but they are perhaps the most important, certainly the most obvious, in explaining France's occupations, her prosperity, and her place as a commercial nation among the great powers of the world. With careful work on the part of the teacher, these points are not too difficult for the children of the upper grades to comprehend.

A STUDY OF THE IBERIAN PENINSULA.

(SPAIN AND PORTUGAL.)

Map Locations (to be taught first): Pyrenees Mountains; Duoro, Tagus, Guadalquivir, Ebro rivers; Madrid, Granada, Gibraltar, Lisbon.

Lesson Unit I: The commercial decadence of Spain and Portugal.

READING LIST:

- *Adams, Commercial geography..... pp. 298-303.
- *Trotter, Geography of commerce..... pp. 270-73.
- *Tarr and McMurry, Bk. III..... pp. 238-41.
- Oxley, Romance of commerce..... pp. 71-83.
- Hale, Stories of the sea..... pp. 52-78.
- *Yeats, The growth and vicissitudes of commerce..... pp. 186-201.
- *Higgin, Spanish life in town and country..... Chap. I.
- *Bigelow, The children of the nations..... pp. 1-84, 126-53.
- *George, Little journeys (Italy, Spain and Portugal)... (Parts).
- Jenks, The boy's book of explorations..... pp. 1-15.
- Stoddard, Lectures, vol. V..... pp. 251 et seq.
- Ingersoll, The book of the ocean..... pp. 30-70 (Parts).
- *Webster, General history of commerce..... pp. 122-28, 206-209, 315-16, 482.

Suggestions: The most striking thing about this region is, that from a place of supreme wealth and importance it has fallen to a comparatively insignificant place among the nations of the world. If the teacher can show clearly and concretely what Spain was in the fifteenth and sixteenth centuries, and indicate what she gave promise of becoming, then by contrast bring out what she is now, and also discuss some of the features which have brought about her commercial decadence, she will not only have brought out most of the details which the text mentions, but will have related them in such a way as to make them mean something to the children. The following suggestions may be helpful in making such a study of Spain and Portugal:—

Turn to the map of Europe in the appendix of the advanced text and tell the children that the maritime commerce of Europe during the Middle Ages was divided into two principal regions, one comprehending the countries to the north bordering on the Baltic, the North Sea, and the Atlantic; and the other consisting of the Mediterranean countries. Now have the children read pages 9 to 11 in the Grammar Grade History (State Series), and in discussion bring out that a large trade had grown up between the East and the Mediterranean region, which up to the close of the fifteenth century was largely controlled by certain cities in Italy. Note also the routes of trade between Europe and the East and the reasons why a new one was wanted. Review briefly at this point the stories of the three great geographical discoveries which occurred at the close of the fifteenth century and which revolutionized commerce,—i. e. the discovery of America, the rounding of the Cape of Good Hope, and Magellan's voyage circumnavigating the globe. In discussing the economic significance of these great discoveries bring out that they brought a complete shift of maritime power; that the commerce of the world ceased to be Mediterranean and became Oceanic; that the distributing point of Oriental goods moved from Italy to Spain and Portugal; that the

countries of the Mediterranean, as compared with those on the Atlantic, became of secondary importance; that new and extensive fields of commerce were opened up both in the East and the West, and that soon Mexico and Peru were pouring rich stores of their precious metals into the coffers of Spain and Portugal. Bring out also that through the stimulus of these early successes both Portugal and Spain entered upon an ambitious colonial policy. Have the children review their information regarding Spanish and Portuguese colonies in the New World. Give them a vivid representation of the power of Spain and Portugal by shading in an outline map of the world showing the extent of the Spanish and Portuguese territories and trade routes during the sixteenth century. Note in this connection that Portugal established herself in the East, whereas Spain became the dominant power for a time in the West. Turn to the map in the advanced text (p. 131) and note that Lisbon, at the mouth of the Tagus, appears to have excellent harbor facilities. Read to the children the description of this harbor in Carpenter's Europe (pp. 447-450); also in Herbertson's Descriptive Geography (pp. 292-293). By turning to the map on page 154 of the advanced text it can be readily seen that Lisbon was the natural center for European trade with the East Indies after the discovery of the route around the Cape. The Portuguese did not, however, realize the value of keeping the carrying trade of the East Indies in their own hands; then they neglected developing agriculture and manufactures, and, becoming indolent and careless through easily gotten luxuries, neglected to provide proper military defense for their colonies, and as a result the Dutch and English found them an easy prey. By the close of the sixteenth century Portugal had lost nearly all of her colonial territory, and she herself was united with Spain under one crown, remaining so united until the middle of the eighteenth century, when she again became independent; however, she has never been strong enough to retrieve her early losses.

Treat Spain similarly; point out among the influences of her downfall that her people in the New World were adventurers and gold-seekers rather than colonizers and successful merchants; that she concerned herself with the products of her silver mines to the exclusion of agriculture and manufacturing industries; that she mistreated and alienated her colonies; and that England and Holland found her unprepared to defend her possessions. In consequence of these and other causes, the middle of the seventeenth century found her colonial and foreign commerce almost completely destroyed, while, as a result of her war with the United States, she is now a country with only three small groups of islands in the Atlantic and Mediterranean and a few African trading-stations—the remnant of an empire which at one time extended around the world.

Lesson Unit II: The occupation of the people and the products of the country.

READING LIST:

- Carpenter, Europe..... pp. 428-36, 445-52.
 *Higgin, Spanish life in town and country..... Chap. X.
 *George, Little journeys (Italy, Spain, and Portugal)... (Parts).
 Herbertson, Europe..... pp. 259-93.
 Stoddard, Lectures Vol. V..... pp. 251 et seq.
 *Webster, General history of commerce..... pp. 315-16, 482.
 *Trotter, Geography of commerce..... pp. 270-73.
 *Adams, Commercial geography..... pp. 298-303.

Suggestions: In presenting this topic the teacher should give the children a notion of the physical features, and of the climate and rainfall of these regions, factors which in a way determine the industries of the country.

The map on page 131 of the text shows that the peninsula consists in the main of a broad plateau over two thousand feet in height, shut in between the Pyrenees on the north and the lofty ranges of the Sierra Nevada on the extreme south; skirting the entire coast of the peninsula, there is a belt of low land of varying width, but generally comparatively narrow. Discuss the effect of the close proximity of the highlands to the coast, bringing out that they cause precipitation of moisture along the coast, little reaching the interior, in consequence of which the highland region as a whole is arid and unproductive, except where irrigation systems have been developed, as in the region along the Mediterranean front. Bring out also that the proximity of the highlands to the coast renders the rivers of the peninsula unnavigable; hence the means of internal transportation is very deficient, greatly repressing any tendency to industrial development. Again, the mountains make railroad-building difficult, and the Pyrenees, having few passes, stand as a barrier between the peninsula and the remainder of Continental Europe. It is true that there are railroads connecting Europe and Spain, but these railroads are forced to make a long detour around the ends of the range, and the interference is rendered greater by reason of the fact that in France the tracks are of a different gauge than those in Spain, made so as a safeguard against invasion.

Read Tarr and McMurry's Europe (pp. 241-250); also the advanced text's treatment of this region. Discuss the chief agricultural and mining products, after which have the children draw an outline map of the peninsula and by shading show the following regions:—

- | | |
|-------------------------------|-----------------------------------|
| 1. Highland region. | 4. Region of wheat and cereals. |
| 2. Lowland region. | 5. Region of the cork oak forest. |
| 3. Region of wine and fruits. | 6. Wool-producing region. |

Lesson Unit III: The Moors and their occupancy of Spain.

READING LIST:

- Morris, Spanish historical tales..... (Parts).
 Lytton, Leila (Fiction)..... Chap. V.
 Irving, Alhambra..... (Parts).
 Carpenter, Europe..... pp. 442-45.
 Companion series, By land and sea..... pp. 27-32.
 Knox, Southern Europe..... Chaps. XXV, XXVI, XXVII (Parts).
 Cox, Modern Europe..... pp. 278-80, 288-93.
 Baté, Spanish highways and byways..... Chaps. II-VIII.
 Lent, Across the country of the little king..... pp. 51-88.
 Bonner, Child's history of Spain..... pp. 16-148.
 Youth's Companion series, Under sunny skies..... pp. 1-18.
 *George, Little journeys (Italy, Spain, and Portugal)... (Parts).
 *Herbertson, Europe..... pp. 270-93.

- Stoddard, Lectures, Vol. V.....pp. 251 et seq.
 Stoddard, Lectures, Supplementary Vol. II.....pp. 243 et seq. (Parts).
 Everett, In fair Granada.....(Fiction).

Suggestions: Review the discussion of the Saracenic conquests referred to in the "Study of European and Asiatic Turkey" (p. 43). Associate the Moorish conquest of Spain with that period. Tell about the battle of Tours, and how Charles Martel stopped the advance and forced the Saracens back beyond the Pyrenees. Discuss the civilization of these peoples and their industrial activity. Relate the story of the final overthrow of the Moors under Boabdil by Ferdinand and Isabella and of their banishment to Africa. Read and discuss the descriptions cited of the beautiful architectural relics of these peoples, which are still to be seen in Spain.

A STUDY OF THE KINGDOM OF ITALY.

Map Locations (to be taught first): Mediterranean, Adriatic; Alps, Apennines, Mt. Vesuvius, Mt. Cenis; Rome, Naples, Florence, Genoa, Milan, Venice; Po, Tiber; Corsica, Sardinia, Sicily.

Lesson Unit I: The Italian people are famous for their achievements in the fields of painting, sculpture, and music.

READING LIST:

- Hoyt, World's painters and their pictures.....(Parts).
 Coe, Modern Europe.....pp. 304-308.
 Villari, Italian life in town and country.....Chap. XVII.
 *Eggleston, Strange stories from history.....pp. 206-11.
 Benedict, Stories of persons and places in Europe.....pp. 378-80.
 Knox, Southern Europe.....pp. 130-32, 194-97.
 Johnnot, Stories of other lands.....pp. 130-50.
 La Ramé, Bimbi.....pp. 137-77.
 *La Ramé, The child of Urbino (Raphael).....(Story).
 Bolton, Famous European artists.....pp. 7-65, 105-54.
 Dallin, Sketches of great painters.....pp. 46-79.
 *George, Little journeys (Italy, Spain, and Portugal).....(Parts).
 Eliot, Romola (Fiction).....(Parts).
 Keysor, Michael Angelo (Great artist series).....(The Story).
 Keysor, Antonio Correggio (Great artist series).....(The Story).
 Keysor, Raphael (Great artist series).....(The Story).
 Stoddard, Lectures, Vol. VIII.....pp. 5 et seq., 113 et seq., 225 et seq.
 Stoddard, Lectures, Vol. I.....pp. 280 et seq.
 Hurl, Raphael (Riverside art series).....
 Emery, How to enjoy pictures.....
 Horne and Scobe, Stories of great artists.....(Parts).

Suggestions: This topic can best be handled by a study of the lives and works of a few individuals who typify the progress which Italy has made in the several artistic fields already mentioned. The following types will serve as well as any others in this connection:—

- Verdi as a type of great Italian composers.
- Paganini as a type of great Italian performers.
- Patti as a type of great Italian singers.
- Raphael as a type of great Italian painters.
- Michael Angelo as a type of great Italian sculptors.

In treating these types put as much reading-matter in the hands of the children as is accessible, and which treats of characteristic incidents in their

lives as well as telling of their work and fame. Secure pictures of the Italian masterpieces of painting and sculpture, tell the stories which they suggest, and comment on the beauty and excellence of the work. Try to present this part of the work sympathetically, to the end that the children may secure, so far as possible, an interest in and appreciation for art products. In discussing the reading references, and in summarizing the work, emphasize particularly the following points: That not only royalty but the common people and the peasant classes were possessed of artistic temperaments, as shown by the fact that they were quick to appreciate and applaud the genius of these men; that great talent was confined to no one class of society; that Italy now is full of priceless works of art, to which all classes have access; and that in point of fact in these respects Italy stands alone and unrivaled.

Lesson Unit II: The country is visited yearly by many tourists, who are attracted by its picturesque and historical features, among which the best known are the following: The Leaning Tower of Pisa, the Cathedral of St. Peter, the Coliseum, the Catacombs of Rome, the gondolas of Venice, the Vatican, and the ruins of Pompeii and Herculaneum.

READING LIST:

- Carpenter, Europe.....pp. 395, 397-99, 408-10, 413, 415-17, 417-28.
 Companion series, By land and sea.....pp. 32-41.
 Youth's Companion series, Under sunny skies.....pp. 30-37, 55-66.
 Strickland, True stories from ancient history.....pp. 246-51.
 Coe, Modern Europe.....Chap. XVII (Parts).
 Abbott, Rollo in Rome.....pp. 105-26.
 Butterworth, Classic lands.....pp. 271-75.
 Knox, Southern Europe.....pp. 1-50, 275-87, 312-15, 363-74.
 Stockton, Roundabout rambles.....pp. 226-27, 283-96.
 Youth's Companion series, The wide world.....pp. 73-78.
 Abbott, Rollo in Naples.....pp. 157-73.
 Benedict, Stories of persons and places in Europe.....pp. 356-58.
 Herbertson, Europe.....pp. 173-209.
 George, Little journeys (Italy, Spain, and Portugal)... (Parts).
 Wade, Our little Italian cousin.....

Suggestions: As many of these historical and picturesque features should be discussed as the teacher can find material which bears on the points mentioned. The location of each should be fixed on the map, and pictures should be shown where possible. If there is any one in the community who has traveled through Italy, invite him to tell the children of his trip. Personal accounts by travelers are always interesting and instructive.

Lesson Unit III: The commerce and industries of Italy.

READING LIST:

- Carpenter, Europe.....pp. 402-10, 417-22.
 Companion series, Talks about animals.....pp. 145-49.
 Coe, Modern Europe.....pp. 320-31.
 Aldrin, Italian life in town and country.....Chaps. XI, XII.
 Chase and Chow, Stories of industry.....pp. 249-53, 54-58.
 Youth's Companion series, Under sunny skies.....pp. 10-20, 38-54.
 Herbertson, Europe.....pp. 209-50.
 Griffith, The romance of discovery.....pp. 55-64, 79-89.
 Webster, General history of commerce.....pp. 480-82.
 Frutkin, Geography of commerce.....pp. 280-93.
 Aldrin, Commercial geography.....pp. 288-97.

Suggestions: In connection with this topic turn to the maps on pages 131 and 155 of the advanced text. Bring out through a discussion of these maps that Italy is singularly well placed for communication with the Eastern Mediterranean and the Suez Canal. In connection with its Eastern trade, it is also fortunate in having along its east coast a number of fine harbors, among the best being Venice, Brindisi, Taranto, Messina, and Syracuse. Find these places on the map and discuss why harbors on the east coast are more advantageous for this line of trade than would be those on the west coast. Observe, also, that the ports of Italy are nearer those of Northern Africa than are those of any other of the great powers. Measure the distance between the terminus of the southernmost Italian railway and Tunis. Estimate the time it would take to bring a cargo of desert products from Northern Africa to the nearest point on this Italian railway. Observe, also, that the Alps are by no means an insurmountable barrier to railway connection between Italy and the countries of Central and Northern Europe. Point out, by referring to map XV (appendix, advanced text) that a road from Italy enters France through the Mt. Cenis tunnel; another through the St. Gotthard tunnel penetrates Germany after passing through the most populous part of Switzerland; a third also reaches Germany by passing through the Tyrol; while a fourth line puts Italy into direct communication with Vienna and the rich valley of the Danube by way of the Brenner Pass. It should be noted that upon the completion of the Simplon tunnel—a tunnel twelve and one half miles long, and a stupendous engineering feat—there will be direct railway connection between Milan and Paris. (This tunnel is not shown on the map referred to.) In the discussion of these points bring out that as a result of such close railway connection Italy stands as one of the main routes of travel between Northern Europe, the Suez Canal, and the East. For instance, London mails to India are sent by mail to Brindisi, a port in South-eastern Italy, and there transferred to a steamer which reaches India by way of the Suez Canal. Review in connection with this point of Italy's position as a natural trade route what was brought out in the treatment of "Spain and Portugal" (p. 36), regarding her commercial position in the Middle Ages. At this point also read to the children Carpenter's Europe (pp. 400-401).

Turn now to the map on page 131 of the advanced text and compare the Italian Peninsula with the Iberian, with respect to structure and climate. Observe that the Italian Peninsula reaches further north than the Iberian, that it is narrower, and that the surface is more irregularly mountainous. Recall, in connection with the study of the rainfall in the Iberian Peninsula (see p. 38), that the point was brought out that the edges of the tableland served to cut off the rain from the interior to a large degree. In Italy the rainfall of the interior is very much greater. Even the great plain of Lombardy, lying directly north of the Apennines, is not deprived of rain through the intervention of this range, for the loftier Alps force the rain-bearing winds which have crossed the Apennines to rise still higher. Discuss the effect of this fact on the rainfall of the region. Again, Italy's supply of water is

greatly increased by the presence of Alpine glaciers. As these melt the water reaches the plains below through numerous streams which are utilized for purposes of irrigation, which is carried out on a much more extensive scale in Italy than in Spain, or, for that matter, than anywhere else in Europe. Read to the children on this point the article "Climate of Europe and America" (Johannot, "Geographical reader," pp. 86-89).

What inferences do the children get from these references as to the climate of Italy? Note the latitude of Venice. Find the same parallel in our own continent and contrast the two climates. Discuss the reasons for the mildness of Italy's climate in contrast to the same latitude in Canada. Bring out here that the difference is due partly to the fact that the lofty Alps to the north of Italy bar the cold continental winds, and partly to the fact that much of Italy is washed by the waters of a great sea. Discuss here the effect of a great body of water in conserving its heat and tempering the climate of adjacent countries.

Regarding the industries, bring out particularly the following points in the discussion of the references cited:—

1. That Italy naturally is a remarkably productive region, as the climate and soil support a great variety of growth, but, owing to primitive methods, agriculture is in a backward state.

2. That the largest and richest farming area is the Lombardy plain lying between the Alps and the Apennines.

3. That wheat and corn are the most important grain crops, though rice is grown extensively in the irrigated regions.

4. That in grape growing and silk culture Italy ranks as one of the greatest countries in Europe.

5. That a considerable portion of the people are engaged in spinning and weaving silk, and in manufacturing wine, macaroni, glass, and mosaics.

Draw a map locating the regions of these products.

A STUDY OF THE KINGDOM OF GREECE.

Map Locations (to be taught first): Mediterranean Sea, Aegean Sea, Ionian Sea; Athens; Pindus Mountains.

Lesson Unit I: The antiquities of Greece.

READING LIST:

Coe, Modern Europe.....	pp. 335-49.
Church, Pictures from Greek life and story.....	(Parts).
Carpenter, Europe.....	pp. 381-92.
Herbertson, Europe.....	pp. 165-72.
Knox, Levant.....	Chaps. XIV-XXI (Parts).
Shaw, Story of the ancient Greeks.....	(Parts).
Baldwin, Old Greek stories.....	(Parts).
Benedict, Stories of persons and places in Europe.....	pp. 404-25.
Butterworth, Levant.....	pp. 271-304.
Guerber, Story of the Greeks.....	(Parts).
* Andrews, Ten boys.....	pp. 48-80.
Cox, Tales of ancient Greece.....	(Parts).
Niebuhr, Greek hero stories.....	(Parts).
Firth, Stories of old Greece.....	(Parts).
Morris, Historical tales; Greek.....	(Parts).
Stoddard, Lectures, Vol. I.....	p. 229 et seq.

Suggestions: The brevity and consequent inadequacy of the text's treatment of the several topics which it discusses is particularly noticeable in its treatment of this region at page 132 of the advanced book. To pass unnoticed the rich fields of Grecian antiquity in order to give a few unrelated facts about the mountains, rivers, and products of modern Greece is to place emphasis on features which are relatively unimportant and uninteresting. The teacher should not permit the opportunity to pass without giving the children some clear notion of the illustrious part which Greece played in the rise and development of European civilization.

Lesson Unit II: The occupations and industries of modern Greece.

READING LIST:

- Knox, *Levant*.....Chaps. XIV-XXI (Parts).
 Coe, *Modern Europe*.....Chap. XVIII (Parts).
 Youth's Companion series, *Under sunny skies*.....pp. 67-74.
 *Kirby, *Aunt Martha's corner cupboard*.....pp. 110-20.
 Stoddard, *Lectures*, Vol. I.....p. 229 et seq.
 *Webster, *General history of commerce*.....pp. 319-20.
 *Trotter, *Geography of commerce*.....pp. 302-304.
 *Adams, *Commercial geography*.....pp. 323-324.

Suggestions: From a study of the map bring out that the country has many deep gulfs which provide excellent harbors, and that therefore the people are naturally a seafaring people. They have greatly profited by the rivalries of the French and English and English and Russian traders in the Eastern Mediterranean (see advanced text's treatment); the result has been that a large part of the carrying trade of the Black Sea and Eastern Mediterranean is conducted under the Greek flag. The internal development of the country has not, however, kept pace with the growth of her carrying trade; for though the climate is genial, the rain falls chiefly in the winter, thus preventing agricultural pursuits on a large scale. Again, the country is sparsely populated; mule-tracks are the only roads, while a glance at the map XV (appendix, advanced text) will show that there are few railroads which penetrate the interior; travel is therefore mainly by vessel and confined to the coast.

A STUDY OF EUROPEAN AND ASIATIC TURKEY.

Map Locations (to be taught first): Constantinople; Bosphorus, Dardanelles; Asia Minor, Armenia, Arabia, Syria, Palestine, Servia, Montenegro, Bulgaria, Roumania, Macedonia, Greece; Tigris, Euphrates; Mecca, Medina, Jerusalem, Damascus.

Lesson Unit I: Turkey's place in modern European history.

READING LIST:

- Knox, *Levant*.....Chaps. XXV, XXVI (Parts).
 Coe, *Modern Europe*.....pp. 349-51, 357-59.
 Phillips, *All the Russias*.....pp. 45-67.
 Stoddard, *Lectures*, Vol. II.....(Parts).
 *The rivalry of nations.....Chaut.—32; Chaps. II, IX, X, XI.

Suggestions: The question which has troubled European diplomats for more than a century, and which for the past twenty-five or thirty years has been of commanding interest in European international politics, has been the question of what should be done with the "sick man of Europe," a phrase which Czar Nicholas once applied to Turkey. Without an understanding of the elements of this question at least, frequently referred to as the "Eastern Question," the successive moves in the game the nations of Europe are playing and which are being recorded daily in the newspapers would be often entirely without significance or point. At first thought this may appear too confused to the teacher and too difficult for presentation to the children; but the teacher will find after a careful reading of any good European modern history that the chief points involved in this question will organize themselves so well in her mind as to permit of clear and simple presentation to the children of upper-grade development. The following suggestions may be of service to the teacher in guiding her in her reading and in her subsequent presentation of this topic:—

Turn to map XIV in the appendix of the advanced text; observe the area in Europe which is now occupied by Turkey, and note that at one time, in addition, she owned Greece, Montenegro, Servia, Roumania, and Bulgaria, which is still nominally subject to Turkey, though practically independent.

Now examine Russia's position in Europe, noting that her only seaports are at present those on the Baltic and the Black seas. Those on the Baltic are far from satisfactory, for they are ice-locked during a part of the year; those on the Black are also of little comparative value, as ingress or egress is controlled by the straits of Bosphorus and the Dardanelles and commanded by the great Turkish city of Constantinople. Read here the description of this city and of the straits and their defenses (see Carpenter, *Europe*, pp. 361-65; Coe, *Modern Europe*, pp. 349-52); discuss with the class what possession of this connection between the Black and the Mediterranean seas would mean to Russia (1) in the way of the development of her internal resources, and (2) in time of war. This is of special significance just now in the war which Russia is carrying on with Japan. Much as Russia would have liked to send her Black Sea fleet to the assistance of Port Arthur, she was prevented, owing to the fact that war-ships of foreign countries are not permitted by Turkey to pass through the Dardanelles. In this manner the teacher can show to the children that Russia's absorbing ambition is to secure control of the territory commanding these straits. Indeed, as far back in Russia's history as Ivan the Terrible (sixteenth century) Russia was planning to secure this outlet. Upon Peter the Great's accession to the throne two centuries ago, he found Russia without any seacoast whatever, for the Baltic coast was in the hands of Sweden, while that of the Black Sea was in the hands of the Turks. He saw clearly that Russia could never become a great power without seaports, and at once set about inaugurating wars to secure control of the Black Sea and the seacoast of the Baltic. "It is not land I want, but water," he said, as he reached out after seacoast. Upon his

death his vigorous policy was allowed to drop until Catherine II (close of the eighteenth century) came to the throne. She took up his plans for extending the boundaries of Russia to the west, absorbing almost all the territory of Poland, to the south, making war on the Turks and securing the right to navigate the Black Sea, besides exercising a protectorate in the interest of the Christians in the Turkish Empire. At this point in the growth of Russia into a great power the Eastern Question is first heard of. Catherine thought she would settle it in her own reign by helping herself to Turkish territory, but when she attempted to carry out her plan she found that Austria, which for centuries had been trying to extend her territory down the Danube, would not admit of such a division as Catherine planned. Russia thereupon took Austria into her confidence, and they proposed to divide up Turkey's European possessions between themselves (Partition Treaty of 1780). Before this could be done other European nations became alarmed at this extension of power on the part of Austria and Russia and objected. Russia and Austria tried to bribe France with the promise of Egypt, but she remained faithful to her old ally, Turkey. In the struggle which ensued Catherine was forced to consent to peace, but gained the right to maintain a fleet in the Black Sea. Thus through the rivalry of European states, Turkey escaped dismemberment in the eighteenth century, and it has been through the jealousies and suspicions of these great European powers that Turkey has still a foothold in Europe, and that the Christian races within her borders are still exposed to the most barbarous atrocities.

The next ruler of Russia to seriously undertake the solution of the Eastern Question was Nicholas I. Catherine had hoped to hold the friendship of Austria and win France to her cause through the offer of Egypt. Nicholas tried a similar plan, but with England; he recognized that the way of dangerous attack on India lay through Egypt. He proposed to give England Egypt and Crete, while Russia was to take Constantinople and the most of European Turkey, but England refused. He then demanded of the Sultan the protectorate of the Christians in Turkey, which had been conceded to Catherine and subsequently refused. The Sultan also refused. The result was the Crimean war (1854-1856). The allies were again too strong for Russia. She was forced to terms and lost the right to maintain a fleet on the Black Sea. The war also resulted in the policy of the formation of a barrier of little independent states between Russia and Turkey. Thus it came about that Roumania was granted her independence by the powers in order that she might act as a block in the way of the ambitions of Russia. Thus a second time Turkey was saved, though with a loss of some territory, through the intervention of the powers.

A little later Russia's opportunity came again. The Christians in Bulgaria rose against the Turkish Government, whereupon the Turks with great cruelty suppressed the insurrection. The massacres which they incited, however, so horrified Europe, and especially England, that Russia under Alexander II believed she could interfere with profit to herself. The Russians

were again victorious, this time advancing their army to the outskirts of Constantinople and forcing the Sultan to sue for peace. Alexander proposed to establish a little state of all European Turkey but under Russian protection. The Sultan agreed to this (Treaty of San Stefano), but just as Russia's ambitious dream was about to be realized Austria and England again stepped in and denied her the fruits of her victory. The result was, that several more Balkan provinces became independent—Servia and Montenegro, besides Roumania; Bulgaria was made a principality dependent upon Turkey; Macedonia went back to Turkey; Austria was allowed to occupy Bosnia and Herzegovina; while Russia was permitted to extend her boundary only to the Danube, besides regaining the right which she formerly held to keep a war-fleet on the Black Sea (Treaty of Berlin, 1873). Thus for a third time Turkey, though still further reduced, was saved from entire effacement in Europe through the action of nations who were concerned not with Turkey's welfare but in blocking the ambition of Russia for an opening to the Mediterranean by way of Constantinople and the Dardanelles.

A fourth time also Turkey has been saved through European jealousies. Very recently the fanaticism and religious intolerance of the Turks broke out in fearful atrocities against the Christian Armenians in Asia. A wave of horror swept over the civilized world as the facts became known, and popular demand was made in the name of humanity that the powers employ radical measures with respect to Turkey; but once again the apparent jealousies of the great powers prevented the adoption of any effective check on the inhuman actions of the Turks.

Bring out in conclusion that Turkey would long since have disappeared as a nation in Europe but for the strategic importance of her position which has aroused the mutual suspicion of the great powers; and that on account of their jealousies the Eastern Question is still one of the great unsettled problems of the future, and one which will undoubtedly lead ultimately to momentous events.

Lesson Unit II: The Sultan and his people: the backward state of their civilization and the indifferent condition of the commerce and industry of their country.

READING LIST:

- Carpenter, Europe.....pp. 371-74.
- Carpenter, Asia.....pp. 290-97.
- Coe, Modern Europe.....pp. 349-59.
- Allen & Sachtleben, Across Asia on a bicycle.....pp. 1-42.
- Knox, Levant.....Chap. XXV (Parts).
- Smith, Life in Asia.....pp. 314-24.
- Starr, Strange peoples.....pp. 60-69.
- Youth's Companion series, The wide world.....pp. 52-56.
- *Miller, Little people of Asia.....pp. 16-58.
- **Wade, Our little Turkish cousin.....
- Garnett, Turkish life in town and country.....(Parts).
- Youth's Companion series, Under sunny skies.....pp. 75-87, 88-98, 132-34.
- Shoemaker, The heart of the Orient.....pp. 1-89.
- Stoddard, Lectures, Vol. II.....(Parts).
- *Webster, General history of commerce.....pp. 318-19, 486.
- *Trotter, Geography of commerce.....pp. 301-2, 338-39.
- *Adams, Commercial geography.....pp. 324-26.

Suggestions: Successive waves of invasion have swept over the Turkish Empire, leaving many aliens who, though now living side by side, yet differ in language, in religion, and in ideals of life and living. Owing to the lack of modern means of intercommunication, together with non-progressive governmental policies, these varied races have never become assimilated; hence the constant friction which exists, particularly in European Turkey. (See the "Study of the Countries of the Danube," p. 26.)

The position of women in Turkey should receive attention. Point out here that while polygamy is permitted by the Koran, yet in practice few Turkish men other than the Sultan and the wealthiest of his subjects have more than one wife. The Koran provides that each wife shall be maintained on terms of exact equality. Whatever one has the others must have. In consequence polygamy is the most expensive luxury the Turkish gentleman can indulge himself in—so expensive in fact that few practice the custom.

The harem and the secluded and restricted life of its inmates should be referred to. Every Turkish house has two separate apartments, the *selamlık*, or men's apartment, and the *harem*, or that portion of the building occupied alone by the women. Custom forbids any intermingling of the sexes; hence no man enters the harem except the head of the household, and even then only in the event of his wife not having lady callers. The word "harem" means "sacred inclosure," and is a term which is frequently applied to certain rooms of the sacred temple. As the term is used in Turkey, it refers merely to the place of domestic seclusion. The life of the woman is not absolutely limited to her own home, for she is permitted to appear on the streets, to enter the bazaars, to carry on business transactions, to receive women callers, to give entertainments, and in other ways to deport herself as would women in other countries; but in doing this she must veil her face if she appears where men are likely to see her.

Another feature of Turkish life which is closely related to life in the harem, and which should receive attention at the hands of the teacher, is the system of slavery which is common to all parts of the Turkish Empire. Many Turkish women of high social rank purchase little girls of the ages of six to twelve, place them in their homes, train them along the line of their aptitudes, and later sell them to young Turks, who frequently prefer to marry an educated, well-trained, and beautiful slave girl to those women who are free born. A young woman trained to speak several foreign languages, to play the zither, to converse intelligently on the topics of the day, and to dance, if she is beautiful, will sell for from four thousand to six thousand dollars. Until recently a public slave-mart was to be found in Constantinople, but owing to the prejudices of the more enlightened powers this was abolished, although the practice of buying and selling slaves is still carried on in the less public places of this city. The extent of Turkey's demand for slaves has been so great as to seriously interfere in the attempts which have been and are being made now in Africa to stop the practice of enslaving the native population.

Turkish laws protecting women were clearly defined as early as the twelfth century, long before either England or America had made any progress in these respects. Even now in some particulars the legal standing of women in Turkey is in advance of these countries. A Mohammedan wife has absolute control of all property she possessed at the time of her marriage, as well as over that which she subsequently obtains. She can dispose of it as she pleases. She can sue or be sued independent of her husband, and can even sue him or be sued by him. If a husband divorces his wife, he must return to her her dowry. In protecting the rights of the slave women the laws are just as rigid. After a servitude of seven years the female slave must be freed if she desires it. Upon marriage she becomes a free woman, with all the legal rights of freeborn women. If the slave bears her master a child, she must be maintained for life or else set free and married. Her children, whether bond or free, have equal rights with the children of his legal wife or wives.

Regarding the Sultan, point out that he is absolute in authority and inviolable in person, and that the entire mechanism of government, executive, legislative, and judicial, is centered in him. He exercises his power through a hierarchy of officials, at whose head and nearest to him in power and influence is the Grand Vizier. Point out that this scheme of administration is peculiarly liable to corruption, and that it is particularly odious in this respect in Turkey. It is so difficult to obtain justice on account of the prevalence of corruption that the powers have demanded and obtained the right to have their citizens resident in Turkey tried in courts presided over by the consul of the country to whom the accused party owes allegiance. For the best reading for the teacher on the preceding points suggested in the treatment of this topic see the following:—

Abdul the haunted.....	R. of Rs.—28: 94-95.
The Turkish despot.....	Ind.—53: 2838-39.
What the Sultan fears.....	Ind.—55: 2297-99.
The Sultan at home.....	Harper—98: 276-87.
The new woman in Turkey.....	Century—66: 925-33.
Women in Turkey: Their rights and wrongs.....	Cosmop.—29: 288-96.
Among veiled women.....	Cosmop.—23: 670-80.
Reform in Turkey.....	R. of Rs.—28: 93-94.
The unspeakable Turk.....	Outlook—74: 929-30.
Why brigands thrive in Turkey.....	Chaut.—35: 573-81.
Seen in Turkey.....	Outlook—72: 265-76.
The impressions of a careless traveler.....	Outlook—73: 154-58.
Garnett, Turkish life in town and country.....	(Parts).

Regarding the commercial and industrial condition of Turkey, through a discussion of the references cited bring out the thought that, while the soil of Turkey is naturally fertile, agriculture, though the chief occupation, is in a most backward state; that the oppression of the Christians, rank taxation, and lack of roads have stifled development; and that most of what little trade there is with other nations is in the hands of foreigners.

Lesson Unit III: The story of the Holy Land; its people and resources, and the part it has played in Biblical narrative.

READING LIST:

- Guerber, The story of the chosen people.....(Parts).
 Thomas, The early story of Israel.....(Parts).
 Knox, Egypt and the Holy Land.....pp. 24-29.
 Endicott, Stories of the Bible.....Vol. I (Parts).
 Arnold, Stories of ancient peoples.....pp. 152-71.
 Strickland, True stories from ancient history.....pp. 220-30.
 Knox, Levant.....Chap. XXVI (Parts)
 Smith, Life in Asia.....pp. 287-310.
 Butterworth, Levant.....pp. 211-60.
 Butterworth, Around the world.....pp. 173-83.
 Carpenter, Asia.....pp. 282-90.
 Terhune, Syria from the saddle.....(Parts).
 *Grenell, The sandals.....(Fiction).
 Johnston, Joel: A boy of Galilee.....(Fiction).
 Wallace, Ben Hur.....(Fiction).
 Bird, Joseph the dreamer.....(Fiction).
 Ingraham, The pillar of fire.....(Fiction).
 Yonge, The pilgrimage of the Ben Beriah.....(Fiction).
 Christmas in Bethlehem.....St. Nicholas—24: 92-98.
 Herbertson, Asia.....pp. 52-64.
 Church, Stories from the Bible.....(Parts).
 Stoddard, Lectures, Vol. II.....pp. 113-224 (Parts).
 *Miller, Little people of Asia.....pp. 60-98.
 *Ashton, Azalim (A romance of old Judea).....
 Price, Wandering heroes.....pp. 1-68.
 Heermans, Stories from the Hebrew.....(Parts).
 **Wade, Our little Jewish cousin.....

Suggestions: Locate this region on the map. Draw it on the blackboard on a larger scale. (For such a map see Tarr and McMurry, bk. III, p. 370.) Compare the latitude of the region with that of southern California. Point out that its climate is more nearly tropical, though in the same latitude. Estimate its area in square miles; it is about one hundred and forty miles long and forty miles wide. Compare with the area of California. Locate the Dead Sea, the River Jordan, the Sea of Galilee, Jerusalem, Bethlehem, the Mount of Olives, and Nazareth. Ask the children to look up stories in the Old and New Testaments associated with each of these places. Also have the children relate incidents in the career of Christ which occurred at each. Require the children to examine as many of the four gospels of the New Testament as time permits, with a view to determining what the occupations and products of the Holy Land were during Bible times. At this point read to the children Herbertson's Asia (pp. 52-64). Contrast this description of present conditions with conditions in Bible times, bringing out the conclusion that while in early times this region was a land "flowing with milk and honey," it is now a region of ruins and the home of a decadent people.

Lesson Unit IV: The life of Mohammed, the nature of the Koran, and the past and present limits of Mohammedanism.

READING LIST:

- Haaren & Poland, Famous men of the Middle Ages.....pp. 80-100.
 Carpenter, Europe.....pp. 375-81.
 Strickland, True stories from ancient history.....pp. 315-19.
 Knox, Egypt and the Holy Land.....pp. 17-20.
 Knox, Levant.....Chaps. XXII, XXIII (Parts).
 Adams, The warriors of the crescent.....(Parts).
 *Garnett, Turkish life in town and country.....Chap. VII.
 *Gibbon, Mahomet.....(A biography).
 *Lord, Beacon lights of history.....2: 23-54.

Suggestions: In connection with this topic tell the children the story of Mohammed's life; how he was born of the highest Arabian aristocracy, but was early left an orphan and in poverty; how he was reared by a merchant

uncle, but under all the influences of idolatry; how as a boy he traveled in many foreign countries with his uncle, and how on these trips he probably became acquainted with the Old Testament scriptures. Tell how in his twenty-fifth year, as a humble camel-driver, he entered the service of a wealthy and powerful widow whom he afterwards married, thereby gaining influence and the leisure necessary for study and meditation. At this time he began to reflect on the prevalence of idolatry among the people, upon its degrading influence, and upon the grossness of its forms of worship until he became visionary and fancied himself the ambassador of God commissioned to root out all idolatry. Tell about the vision which appeared to him in his fortieth year, wherein an angel spake, saying: "O Mohammed! of a truth thou art the Prophet of God and I am the Angel Gabriel." Show how indomitable his will was by relating that after three years of organized and eloquent preaching against idolatry he had but thirteen converts, one being his own servant, but in spite of which he exclaimed: "If the sun stood on my right hand and the moon on my left ordering me to hold my peace, I would still declare there is but one God." To add to his discouragement persecution set in, and he was forced to flee for his life from Mecca to Medina. Bring out that this flight (Hegira, 622 A. D.) marked a change in Mohammed's policy, for after this, instead of appealing to the highest intellectual and moral elements of man, he began to hold out promises of Paradise and sensual joys, and by way of contrast a frightful account of the tortures of hell to those who died in defiance of his religion. "He painted heaven as a land whose soil was the finest wheaten flour, whose air was fragrant with perfumes, whose streams were of crystal water or milk or wine or honey, flowing over beds of camphor—a glorious garden of fruits and flowers, whose inhabitants were clothed in garments of gold sparkling with rubies and diamonds, who reclined in sumptuous palaces of silken pavilions and on couches of voluptuous ease, and who were served with viands which could be eaten without satiety and liquors which could be drunk without inebriation; yea, where the blissful warrior for the faith could enjoy an unending youth, and where he would be attended by houris, with black and loving eyes, free from all defects, resplendent in beauty and grace, and rejoicing in perpetual charms." (From "Mohammed," by John Lord.)

Point out, however, that the greatest and most momentous change which resulted from the enforced flight from Mecca was the determination of Mohammed to force men for their own good to accept the truth even against their will. Thus began the Mohammedan policy of conversion by the sword, which before Mohammed's death resulted in the conquest of the Arabian Peninsula, and in an incredibly short time thereafter in the conquest of Syria, of Egypt, of Persia, of Northern Africa, of Northern India, and the serious invasion of Europe from both the east and the west. Have the children work out on outline maps the greatest extent of the Mohammedan conquest; contrast with this the present shrunken limits of Mohammedanism.

Mention the fact in this connection that at the present time Mohammedan-

ism is growing more rapidly than any other religion, not excepting Christianity; that more than ten million converts to Mohammedanism have been made during the past ten years; and that this great growth is largely confined to Africa and particularly to the region of the Soudan. State also that some writers of repute prophesy that the great war of the future will be a conflict for religious supremacy between Mohammedanism and Christianity.

Regarding the Koran, bring out that it is the sacred book of the Mohammedans; that in it are comprised the revelations which Mohammed professed to have received from time to time, either directly from God or through the Angel Gabriel, and which, after his death, had been collected from the palm-leaves, bits of leather, stones, sheep-bones, and other materials on which the several revelations had been written; and that in consequence it is made up of scraps thrown together irregularly without any attempt at arrangement or system. Read parts of chapters II and XXIV of the Koran to the children. Compare similar passages describing the nature of God in the Book of Job, bringing out that in dignity of language and conception the Koran is greatly its inferior. A comparison of the story of Joseph (chap. XII, Koran) with the same incidents as related in Genesis will show a like inferiority in narration.

A STUDY OF EUROPEAN AND ASIATIC RUSSIA.

Map Locations (to be taught first): Russia, Siberia; Baltic, Black, Caspian, Okhotsk, Bering seas; Carpathian, Caucasus, Elburz, Hindu Kush, Thian Shan, Yablonoi, Ural mountains; Dnieper, Volga, Ural, Amur, Lena, Yenisei, Ob rivers; St. Petersburg, Moscow, Vladivostok.

Lesson Unit I: The geographical extent of the Russian Empire, its physical features and characteristic products.

READING LIST:

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|--|-------------------------------|
| Coe, Modern Europe..... | pp. 359-60, 386-90. |
| Rupert, Geographical reader..... | pp. 267-69. |
| Carpenter, Europe..... | pp. 314-20. |
| Herbertson, Asia..... | pp. 1-6. |
| **Pratt, Northern Europe..... | pp. 45-53. |
| Herbertson, Europe..... | pp. 29-31, 48-54. |
| Smith, Life in Asia..... | Chap. XXII. |
| Youth's Companion series, Northern Europe..... | pp. 109-22. |
| Stevens, Through Russia on a mustang..... | pp. 37-43, 62-65, Chap. XVII. |
| Phillips, All the Russias..... | pp. 198-224. |
| Hapgood, Russian rambles..... | Chap. XIII (Parts). |
| Knox, Russian Empire..... | Chaps. XIV, XV, XX. |
| Kennan, Tent life in Siberia..... | (Parts). |
| Stoddard, Lectures, Vol. VI..... | pp. 227-336 (Parts). |
| *Webster, General history of commerce..... | pp. 304-9, 472-75. |
| *Trotter, Geography of commerce..... | pp. 309-18. |
| *Adams, Commercial geography..... | pp. 395-17, 393-95. |

Suggestions: To give the children some idea of the vastness of this region have them turn to the map of Asia (p. 134, advanced text) and estimate the area of European Russia, comparing it with Europe. Also compare the area of Siberia with the area of Asia. Turn to the table of areas on page 157 of

the advanced text and verify your conclusions. From data given in this table, compare the area of Siberia in square miles with that of South America; the area of the whole of Russia with that of the continent of North America. From the same table estimate what portion of the entire land surface of the earth belongs to Russia. At this point read to the children the statement regarding Russia's size given in the references cited.

In regard to the physiographical characteristics of Russia have the children turn to the map on page 112 of the advanced text. Compare this map with the one on page 134. Observe that the Empire of Russia comprises all but a very small part of the great northern lowlands of Eurasia. Note, too, that the rivers of Siberia flow into the Arctic, and can be of little commercial value except in their upper reaches. Observe that those of European Russia flow, in the main, in two directions, toward the north, into the Baltic, and toward the south, into the Black and Caspian seas. From these facts conclude which region is likely to be the last in being populated and developed.

In climate and vegetation the vast area comprised in the Empire of Russia is broken roughly into five fairly well defined zones:—

1. The Frozen or Tundra Region:

Bring out here that this is a belt of vast morasses and cold swamps in the extreme north of Russia, and that it is sparsely populated by semicivilized Laplanders, who rely for subsistence on reindeer and on the fish of the streams. Review also the general treatment of this subject given on page 9.

2. The Forest Region:

Bring out from the reading that this region constitutes a belt several hundred miles wide, stretching almost entirely across the north central part of both European and Asiatic Russia, and that in many places the timber growth is so great as to render the forest impenetrable. It should be brought out, too, that, roughly speaking, the north temperate forests of Eurasia are about in the same latitude as the great forests of North America. Do not permit the children, however, to form the erroneous notion that latitude alone determines the vegetation of the region, for the growth of timber forests depends first of all on a fairly abundant and widely distributed rainfall, and second, on a summer atmosphere which is above fifty degrees F., and that, in consequence, the land supporting tundra and forest follows no one parallel of latitude. Thus, for example, the forest region of North America extends three hundred miles north of the Arctic Circle in Alaska and in the Mackenzie Basin, while in East Canada it does not reach the Arctic Circle by five hundred miles, owing to the reduction of the summer temperature of this region by reason of the ice masses of the Hudson Bay. It rises again in Norway and Lapland, but falls again in the neighborhood of the White Sea. These facts are shown fairly well on the vegetation map in the advanced text (p. 28). Bring out, therefore, the fact that many conditions besides latitude affect the summer temperature of given regions.

In addition develop the fact that along the streams of Russia the timber industry is becoming very active, the export value already reaching twenty-five million dollars yearly. In Siberia lumber still gives place to the more profitable occupation of fur hunting, an industry which reaches its greatest proportions in the forests of this region.

3. The Region of the Farm Lands:

Locate this region on the map. (The best map of this region in the advanced text is the one on page 28.) From the references given bring out that this region, the famous "Black Earth Region of Russia," consists of a thick layer of black earth from three to twenty feet deep, and so rich that it has yielded good crops of wheat for several generations without fertilizing.

In your further discussion of these references point out that agriculture is the leading industry of Russia, though through lack of improved machinery and through the ignorance of the peasantry an acre of farming land in Russia is made to produce only about half as much as an acre of land in England and the United States. In spite of this, however, the area under cultivation is so great that Russia ranks next to the United States in her exportation of wheat; besides, she raises more flax and hemp, rye, barley, and oats than any other country in the world; she ranks fourth among the sugar-beet countries; she is one of Europe's largest growers of tobacco; and she also produces large quantities of potatoes, hay, cotton, and rice. She has ninety agricultural schools and many experimental farms under governmental control; hence great progress toward scientific farming may be reasonably expected in the future.

Trace out the route of the Trans-Siberian railway. (See advanced text, p. 134.) Note that it passes through the agricultural region of Russia. Discuss its importance in developing the resources of the country, and particularly those of Siberia. (Read Carpenter's *Asia*, pp. 93-101.) In this connection refer to the policy of the Russian Government in encouraging immigration of the Russian peasants to Siberia. Since 1892 the government has set aside nearly twenty-seven millions of dollars for colonization purposes; the committee having the work in charge is beginning by carefully surveying the Siberian crown lands, with due regard to the forests, which are to be preserved. Roads are being built, wells drilled, swamps drained to render habitable and accessible large tracts of land heretofore regarded as uncultivable. Thirty-seven and a half acres are assigned to each adult settler, besides which he is loaned anywhere from thirty to eighty dollars, repayable in ten to twenty years. Other inducements are also given to secure immigration. Special rates are made on the railroad, and occasionally teams are furnished to carry the new-comers to their destination, while timber from the state forests, and farming implements, are furnished at small cost. By the year 1900 the government had erected in Siberia along the line of the road thirty stations containing provisions and medical supplies for the colonists at a cost approximately of a quarter of a million of dollars. These favorable conditions have

had the effect desired, and since 1893 the number of immigrants entering Siberia have averaged one hundred and thirty-seven thousand yearly. (For this and other facts see article "Russian immigration to Siberia." American Review of Reviews, July, 1904.)

4. The Steppes, or Pastoral Region:

The agricultural belt to the south, in the neighborhood of the Black and the Caspian seas, shades off into a region called the "Steppes," which is not so rich nor in which rainfall is so abundant, but upon which wild grasses grow in luxuriance and where vast herds of horses, cattle, and sheep are to be seen. From the references to this region bring out the characteristics just mentioned. Review also the points brought out in the general reading on the Steppe region (p. 10). Read to the children "The Steppe," and "The Steppe-dwellers and their occupation," in Herbertson's Descriptive Geography (Asia, pp. 7-11).

5. The Fruit Belt:

On the map of Eurasia note that the extreme southern part of European Russia, that part in the neighborhood of the Black Sea, is in about the same latitude as Italy, and that it has also about the same climate. Travelers state this region produces a great variety of fruits, such as peaches, apricots, cherries, grapes, etc., and that the fruit is of a most delicious flavor.

Lesson Unit II: Commercial and manufacturing Russia.

READING LIST:

- | | |
|--|----------------------|
| Carpenter, Europe..... | pp. 340-61. |
| Stoddard, Lectures, Vol. VI..... | pp. 227-336 (Parts). |
| Coe, Modern Europe..... | Chap. XXI (Parts). |
| King, Northern Europe..... | p. 309-43 (Parts). |
| *Webster, General history of commerce..... | pp. 304-9, 472-75. |
| *Adams, Commercial geography..... | pp. 312-14. |
| *Trotter, Geography of commerce..... | pp. 309-18. |

Suggestions: Although Russia is still, in the main, an agricultural country, it should be noted that her mines and manufactures have greatly developed during the last few years. She now ranks first in the world in the production of petroleum, while the annual product of her factories alone is worth over a billion and a half dollars.

Discuss our commercial relations with Russia, pointing out that while the bulk of Russia's trade is with Germany and Great Britain the United States has a growing share, particularly in the line of machinery, tools, and railway appliances and material. Bring out the advantages of position which the United States has in regard to Siberia in connection with the possibilities of trade with Russia.

Lesson Unit III: Russia's policy of territorial acquisition.

READING LIST:

- | | |
|--|-------------------------------------|
| Knos, Russian Empire..... | Ch. XIII, XXI, XXII, XXIII (Parts). |
| Morris, Historical tales: Russian..... | pp. 300-18. |
| Stoddard, Lectures, Vol. VI..... | pp. 227-336 (Parts). |

Suggestions: Review that part of the treatment of "European and Asiatic Turkey" (p. 43) which bears on Russia's policy of territorial acquisition. Discuss the part this policy played in precipitating the struggle with Japan. The value of the Trans-Siberian railway was discussed from the standpoint of its effect on the agricultural development of the country; discuss now its bearing on and use in the Russo-Japanese war.

Lesson Unit II: Russia's government: the condition of the peasant classes viewed in the light of the present internal disorders (March, 1905).

READING LIST:

- Kennan, Tent life in Siberia..... (Parts).
 Benedict, Stories of persons and places in Europe..... pp. 9-42.
 Taylor, Boys of other countries..... pp. 125-64.
 Henty, Condemned as a Nihilist..... (Fiction).
 Cotin, Elizabeth..... (Fiction).
 Coe, Modern Europe..... pp. 370-74.
 Stevens, Through Russia on a mustang..... pp. 1-22, 84-91, 96-115, Chaps. VII, VIII, X, XII-XIV, XXI.
 Rupert, Geographical reader..... pp. 269-72.
 Phillips, All the Russias..... pp. 22-24, 68-101, 131-42, 195-97.
 Palmer, Russian life in town and country..... Chaps. V, VIII, IX, XXI (Parts).
 Hapgood, Russian rambles..... Chaps. I, III
 Laurie, Schoolboy days in Russia..... (Fiction).
 Knox, Russian Empire..... Chaps. II, IV, VII, IX, XIII, XVI (Parts).
 Hilliard, Under the Black Eagle..... (Fiction).
 Graydon, Exiled to Siberia..... (Fiction).
 Barr, Michael and Theodora..... (Fiction).
 Morris, Historical tales: Russian..... pp. 293-99, 319-28.
 **Wade, Our little Russian cousin..... (Parts).
 **George, Little journeys (Russia)..... (Parts).
 **Miller, Little people of Asia..... pp. 262-So.

Suggestions: The points which should be emphasized in connection with this topic are the following: The absolute power of the Czar, there being nothing which corresponds to the English Parliament or to our Congress; that to preserve his authority he has built up an elaborate system of police inspection and surveillance; that the peasant classes are densely ignorant, are downtrodden by the bureaucracy, and for the most part live in a state of abject poverty which breeds a spirit of discontent.

A STUDY OF ARABIA AND THE PLATEAU OF IRAN.

(PERSIA, AFGHANISTAN, AND BALUCHISTAN.)

ARABIA.

Map Locations (to be taught first): Arabian Peninsula, Turkish Empire; Syrian Desert, Palestine; Persian Gulf, Red Sea, Indian Ocean: Mecca, Medina.

Lesson Unit I: The people: their occupations, customs, and life.

READING LIST:

- *Zwemer, Arabia: the cradle of Islam..... (Parts).
 **Allen, Children of the palm lands..... pp. 115-34.
 Tarr and McMurtry, Bk. III..... pp. 372-74.
 Carpenter, Asia..... pp. 273-82.
 Herbertson, Asia..... pp. 65-71.
 Taylor, Travels in Arabia..... (Parts).
 Headley, Mountain adventures..... pp. 240-47.

Smith, Life in Asia.....	pp. 273-86.
Starr, Strange peoples.....	pp. 118-23.
French, Lance of Kanana.....	(Fiction).
* Andrews, Seven little sisters.....	pp. 23-42.
* Andrews, Each and all.....	pp. 57-90.
Kirby, World by the fireside.....	pp. 274-96.
* Shaw, Big people and little people of other lands.....	pp. 25-36.
* Zwemer, Topsy-turvy land.....	(Parts).
* Chance, Little folks of many lands.....	pp. 67-82.

Suggestions: The chief points to be brought out through a study of the maps of the region and of the references cited above are the following:—

That the peninsula of Arabia is mainly a desert tableland surrounded by a broken rim of mountain ranges and fringed by a strip of low-lying coast land.

That the central part is a pasture region in which are raised cattle, horses, sheep, and camels.

That the country has no rivers of importance, and that its water supply is derived in the main from wells.

That the country is sparsely inhabited by wild nomadic tribes, who recognize little governmental control.

That the chief products of the country are fruits, coffee, and dates.

That Turkey claims political control over the whole of the peninsula, with the exception of the British settlement at Aden and the independent state of Oman in the extreme southeast, but that she has made her pretensions good only along the coast.

That historically this is the birthplace of Mohammedanism. (See "Study of European and Asiatic Turkey," p. 49.)

PERSIA.

Map Locations (to be taught first): Teheran; Elburz Mountains; Persian Gulf, Caspian Sea; Mount Ararat.

Lesson Unit I: The products of the country and the life of the people.

READING LIST:

Carpenter, Asia.....	pp. 265-73.
Rupert, Geographical reader.....	pp. 73-82.
Herbertson, Asia.....	pp. 82-92.
Youth's Companion series, Toward the rising sun.....	pp. 129-34.
Allen and Sachtleben, Across Asia on a bicycle.....	pp. 43-113.
Smith, Life in Asia.....	pp. 253-69.
* Andrews, Ten boys.....	pp. 25-47.
Bulfinch, Age of fable.....	pp. 390-94.
* Miller, Little people of Asia.....	pp. 98-116.
Schoemaker, The heart of the Orient.....	pp. 90-203.

Suggestions: Bring out the following facts: That Persia is an absolute monarchy; that in area it is about twice the size of Texas; that, like Arabia, it is an elevated tableland, with large tracts of desert and salt plains, but also having many valleys watered from the mountains by irrigation systems, and growing wheat, opium, raw silk, cotton, tobacco, and dates; that it is noted for its manufacture of rugs and carpets; and that difficulties of transportation and lack of capital dwarf the commerce of the country.

AFGHANISTAN AND BALUCHISTAN.

Map Locations (to be taught first): Observe the location of these countries, particularly with respect to India; Kabul, Khelat; Khaibar Pass.

Lesson Unit I: The strategic importance of these regions.

READING LIST:

- Herbertson, Asia..... Parts IV, V.
 Smith, Life in Asia..... pp. 270-73.
 Tarr and McMurry, Bk. III..... pp. 376-77, 390.
 Henty, To Herat and Cabul..... (Fiction).

Suggestions: These countries, for centuries comprised within the Persian monarchy and of the same geographical characteristics of Persia, are now independent of that country. Baluchistan contains a number of chiefs who are under the Khan, who in turn recognizes the protectorate of Great Britain, having placed the whole of the country at the disposal of the British Government for all military and strategic purposes. Afghanistan, on the other hand, is independent, though its government is very primitive. Its importance is due to its position as a "buffer" state between Russia and India. It has been the scene of tremendous conflicts, as it commands the Khaibar Pass, one of the important passes through the mountains between India and the north. In this connection discuss Russia's policy of territorial absorption to the south, and how the interests of the two great nations, Russia and England, have conflicted in this region of Central Asia. Also bring out in discussion that the three countries, Persia, Afghanistan, and Baluchistan, comprise the plateau of Iran and constitute an area about one third that of the United States.

A STUDY OF INDIA AND INDO-CHINA.

Map Locations (to be taught first): Himalaya Mountains, the Dekkan Plateau; Western Ghats, Eastern Ghats, the Indus, Ganges, and Brahmaputra rivers; Calcutta, Bombay, Madras, Benares; the Arabian Sea, Bay of Bengal, Indian Ocean; the peninsula of Hindustan, Burmah, Ceylon; Baluchistan, Afghanistan, Persia.

Lesson Unit I: India comprises three physical areas: (a) the foothill region of the Himalayas, characterized by its jungles of wild animals, its tea-farms, and its forests of oak and cedar; (b) the region of the great plains, the wheat and farming area of India, and the seat of her great population; and (c) the region of the Dekkan Plateau whose foothills of coffee and grains shade into stretches of unreclaimed forests.

READING LIST:

*Adams, Commercial geography.....	pp. 396-405.
Trotter, Geography of commerce.....	pp. 331-35.
*Webster, General history of commerce.....	1 p. 501-2.
Stoddard, Lectures, Vol. IV.....	pp. 7-31.
Smith, Life in Asia.....	pp. 18-32.
Carpenter, Asia.....	pp. 209-17, 225-33, 249-56
Herbertson, Asia.....	pp. 135-37, 170-73.
Rupert, Geographical reader.....	pp. 297-98.
Knox, Ceylon and India.....	pp. 410-39.
Tarr and McMurtry, Bk. III.....	pp. 38f-87.
Knox, Siam and Java.....	pp. 143-48, 161-76.
"Oliver Optic," Across India.....	(Fiction).
Butterworth, India.....	pp. 108-17, 138-58.
Holcomb, Bits about India.....	pp. 39-51, 74-114.
*Miller, Little people of Asia.....	pp. 130-88, 223-61.
*Shaw, Big people and little people of other lands....	pp. 46-52.

Suggestions: These regions are fairly well shown on the map on page 112 of the advanced text. Spend most of your time in discussing the region of the great plain. Talk about the character of the soil—how it is a rich deposit washed down from the mountains by the rivers, and how on account of its fertility and because of the climate of the region it is particularly well adapted to agricultural pursuits. Point out that because of these conditions and because the region is protected from invasion by the nomadic hordes of the north, very early in history it became the seat of a civilized people who engaged in farming. Bring out that this region has become the chief source of England's supply of wheat, and that the opening of the Suez Canal gave a tremendous stimulus to wheat cultivation. Discuss the reason. The British Government is doing much to foster and improve the agriculture of this region. Public departments which collect and distribute agricultural information have been established in each province. Agricultural schools and experimental farms have been organized, and new methods of farming, new implements, and new fertilizers have been successfully introduced in many places. This has not only increased the total agricultural output, but has cheapened the product as well. These improved methods have made India a formidable rival of China in the world's trade in tea. In China the tea is cured and marketed by hand processes, while in India and Ceylon there are tea plantations of hundreds of thousands of acres where machinery of the most improved kind is used. The result has been to greatly decrease China's output.

In discussing the production of tea defer the details regarding the method of its cultivation, curing, and marketing until you take up the study of China. Point out here, however, the tea-producing regions not only of India but of the world.

Require the children to shade in these regions on an outline map of the world.

Discuss the effect on the commercial wealth of the country of the fact that the religious beliefs confine about three fourths of India's population to a vegetable diet.

In regard to the density of population, have the children turn to the statistics given on page 157 of the advanced text. Estimate the average density of the population of India and compare with that of the United States. Note,

further, that in an area half as great as that of the United States it has a population nearly as great as the combined populations of North America, South America, and Africa.

Lesson Unit II: India is a hot, unhealthful region, and is dependent upon the southwest monsoon for its rainfall. The failure of this monsoon has frequently caused the most appalling famines, the bad results of which are now greatly lessened through the extensive development of irrigation systems and of railroads, which connect all the important productive districts and trade centers.

CHILDREN'S READING:

Smith, Life in Asia.....	p. 23.
Rupert, Geographical reader.....	pp. 298-306.
Tarr and McMurry, Bk. III.....	p. 386.
Carpenter, Asia.....	pp. 206-208.
Herbertson, Asia.....	pp. 186-88.
Stoddard, Lectures, Vol. IV.....	(Parts).
Butterworth, India.....	pp. 290-97.
Scott, In famine land.....	(Parts).
Compton, Indian life in town and country.....	(Parts).

Suggestions: In the discussion of the monsoons of India for the points in the explanation which should be clearly presented, refer to page 8. Point out that the prevailing winds are the southwest monsoon (from the southwest) in the summer and the northeast monsoon in the winter. The direction of these winds is shown on map, page 26 of the advanced text. Note that the southwest monsoon, blowing from the ocean, brings vast quantities of moisture, a part of which is precipitated on the west slope of the Ghats Mountains. The remainder of the moisture is carried across the plateau with no great precipitation, as it does not meet a sufficient condensing medium until it reaches the mountains of the north, where most of the water is precipitated on the southern slopes of the Himalayas, where it feeds the Ganges and Indus rivers. That region near the mouth of the Indus is called the Indian Desert. Can the children tell why the region is arid? The northeast monsoon, passing as it does across a smaller body of water, carries with it a much smaller amount of water. This it deposits on the east coast, but not in sufficient quantity to avoid recourse to irrigation.

Have the children turn to map XIX in the appendix of the advanced text and observe the railroads of India. Note how the grain-producing districts are tied together and also joined to the chief seaports of the country by a network of railroads. Discuss the bearing of this on (1) the internal development of the country, and (2) the seriousness of local famines.

Lesson Unit II: India is the home of Brahmanism and the seat of the system of caste.

READING LIST:

**Wade, Our little Siamese cousin.....	
Holcomb, Bits about India.....	pp. 143-65, 228-48, 264-72.
Stoddard, Lectures, Vol. IV.....	(Parts).
Compton, Indian life in town and country.....	pp. 3-50.
**Pratt, Stories of India.....	pp. 12-50.
Youth's Companion series, Toward the rising sun.....	pp. 9-15.
Knox, Siam and Java.....	pp. 119-30.
"Oliver Optic," Across India (Fiction).....	(Parts).

Butterworth, India.....	pp. 3-46, 118-25, 180-232, 253-65, 304-20.
Headley, Mountain adventures.....	pp. 257-65.
Starr, Strange peoples.....	pp. 101-17.
Angus, The Eastern wonderland.....	Chap. IV, pp. 107-16.
Smith, Life in Asia.....	pp. 39-42.
Rupert, Geographical reader.....	pp. 307-17.
Tarr and McMurtry, Bk. III.....	p. 387.
Carpenter, Asia.....	pp. 57-59, 234-40.
Hercertson, Asia.....	pp. 154-56.
Johannot, Geographical reader.....	pp. 197-202, 210-12.

Suggestions: In discussing Brahmanism bring out the fact that it is the ancient religion of India; that it exists to-day only in India; that it is embraced by three fourths of India's population; and that very early it degenerated into a huge system of demonology. In connection with this last point tell the children that according to this faith the woods, fields, trees, rivers, as well as all animals, are inhabited by beneficent or malevolent spirits; and that the religion recognizes some three hundred and thirty million deities, the images of which are to be found in great numbers throughout the entire country. Have the children relate the stories which they have read in the references already cited of the manner of worship of these peoples; how it is esteemed a religious rite to bathe in the River Ganges, of the pilgrimages to the "holy city" of Benares, and of the caste system and its practices,—all to be discussed in the light of their significance as seen by the Brahman.

Since India is likewise the home of Buddhism, and since this religion is frequently confused with Brahmanism, see to it that the relation between the two religions is brought into clear contrast. The chief points to note concerning this are as follows:—

(a) Buddhism grew out of a revolt against the tyrannical and idolatrous practices of the Brahmans, and was lead by Guatama Buddha, six centuries B. C.

(b) It spread over India, but was driven out by the religion it attempted to supplant; that to-day the only Buddhists in India proper are comprised in a small sect in Bombay; that from India the faith passed northward to Tibet and eastward to Burmah, Siam, Anam, and thence to China and Japan; and that it still flourishes in these countries, though in a modified form.

(c) It surpasses all religions except Christianity in the purity of its moral teachings, as originally taught.

(d) In marked contrast to the Arabian method of propagating Moham-medanism by the sword, Buddha relied only on preaching.

Lesson Unit II: India, together with the islands of the East Indies, was the goal of all the early European expeditions to the East, and indirectly led to the discovery of America.

READING LIST:

Smith, Life in Asia.....	pp. 13-14.
Stoddard, Lectures, Vol. IV.....	pp. 9-10.
Brooks, Marco Polo.....	(The story).
Aderton, Adventures of Marco Polo.....	(The story).
Holmes, The world's discoverers.....	pp. 3-119.
Grove, The romance of discovery.....	(Parts).
Twiss, Marco Polo.....	(The story).

Towle, Voyages and adventures of Vasco da Gama..
 Lawler, The story of Columbus and Magellan.....
 Haaren and Poland, Famous men of the Middle Ages, pp. 213-18.

Suggestions: This topic really draws on nothing which the children have not had in connection with their history. But it will be of interest and profit in connection with geography to review the study which the children have already given to the routes of trade of the fifteenth century between Europe and the East; the difficulties and dangers encountered; the nature of the commodities interchanged; the story of Marco Polo; the desire for a water route; and the voyages of Vasco da Gama and Columbus.

Lesson Unit V: India is a dependency of Great Britain, and is ruled by a Governor-General, who is appointed by the King.

READING LIST:

- Smith, Life in Asia..... pp. 33-35, 82-86.
 Rupert, Geographical reader..... pp. 298-306.
 Tarr and McMurry, Bk. III..... pp. 388-90.
 Carpenter, Asia..... pp. 202-8.
 Butterworth, India..... pp. 20-24.
 **Pratt, Stories of India..... pp. 51-70.
 Compton, Indian life in town and country..... Chap. I.
 Stoddard, Lectures, Vol. IV..... (Parts).

Suggestions: Bring out in discussion the following points:—

The King of England is the ultimate authority in British India. He appoints a Secretary of State for India, who is the practical head of affairs, and who resides in England. He is assisted by a council of from ten to fifteen members, appointed by himself from among distinguished persons who have lived in India. These members live in England and constitute an advisory committee without ultimate authority. To the Secretary and his council is intrusted the conduct of all business transacted in the United Kingdom in relation to the government of India.

In India the executive authority is vested in a Governor-General, who is appointed by the King, but is under the direction of the Secretary of State for India. The Governor-General, under the sanction of this Secretary, has power to make laws for all British India.

Bring out also that British rule in India, though not free from grave mistakes, has been of incalculable blessing to the country. Religious freedom is protected; general education is promoted with energy; the people, continually engaged in internal wars before, are now gathered under a stable government; railway, telegraphs, electric power, and factories have been introduced—all as a direct result of British sovereignty.

A STUDY OF THE CHINESE EMPIRE.

Map Locations (to be taught first): China proper, Manchuria, Mongolia, Chinese Turkestan, Tibet; Amur, Yalu, Hoang-ho, Yangtse-kiang rivers; Canton, Shanghai, Hongkong, Peking; Japan, Yellow, China seas; the Great Wall, Grand Canal.

Review (to be given last): On an outline map of eastern Eurasia locate all of the above places. Fix arrows to show the direction of the prevailing rain-bearing winds of the eastern and southeastern coast. Shade in the region known as the deserts of Gobi and Tibet. What are the physical conditions which cause these regions to be arid? Show by shading the five provinces of the Empire: China proper, Manchuria, Mongolia, Chinese Turkestan, Tibet. On an outline map of the world show by shading the following: (1) The tea-producing regions of the world; (2) The rice-producing regions of the world; (3) The silk-producing regions of the world.

Lesson Unit I: China is the oldest country in the world. It had an advanced civilization long before Europe emerged from barbarism.

READING LIST:

- Cunningham, Young people's history of the Chinese.. (Parts).
 *Pratt, China..... pp. 22-25, 30, 75-77.
 Carpenter, Asia..... pp. 128-34, 141-43.
 Knox, Japan and China..... pp. 385-87.
 Smith, Life of Asia..... pp. 162-65, 178-79.
 Stoddard, Lectures, Vol. III..... pp. 227-28, 332-35.
 Van Bergen, Story of China..... pp. 112-33.
 Fielde, Corner of Cathay..... pp. 166-213.
 Butterworth, Traveler tales of China..... pp. 55-57.
 *Lee, When I was a boy in China..... pp. 63-71.
 *Miln, Little folks of many lands..... pp. 216-18.
 Smith, Chinese characteristics..... pp. 307-13.
 Holcombe, Real Chinaman..... pp. 49-53.
 Youth's Companion series, Toward the rising sun..... pp. 16-28.
 Allen and Sachtleben, Across Asia on a bicycle..... pp. 149-234.
 Headland, The Chinese boy and girl..... (Stories).
 Morris, Historical tales: Japan and China..... (Parts).

Suggestions: The references given above are to four points, each bearing directly on the lesson unit: (1) To the enlightened emperors, 3000 B. C.; (2) to the building of the Great Wall, illustrating the strength of a government which could successfully complete such a great undertaking; (3) to Confucius, as the founder of China's ancient literature; and (4) to the important inventions of the Chinese which illustrate the advancement of ancient China in the mechanical arts.

In connection with the first point bring out the story of the wonderful things which Emperor Fuhhe and his immediate successors did for the advancement of their people, nearly 3000 B. C.; how they coined money, made maps, drained marshes, constructed vessels, and encouraged the building of villages and cities. Bring out strongly that these reforms were inaugurated fully two thousand years before the inhabitants of Europe were anything more than primitive savages living in caves and in the forests.

On the second point, the Great Wall of China, after bringing out the details of the magnitude of the undertaking, the purposes for which it was constructed, and that it took a million men ten years to build it, discuss the high degree of civilization required to unite the people in an undertaking of such magnitude.

Regarding Confucius and the literature of ancient China, discuss references to his life and writings with a view to showing that 500 B. C. China had a high grade literature.

As another illustration of the age and the early development of China take the important inventions placed to her credit,—the art of printing, the manufacture of porcelain and paper; besides, the invention of writing, gunpowder, and the mariner's compass were all known to the Chinese long before the time of Christ. Discuss their importance in the industrial world and the degree of civilization which they indicate.

In this work the teacher must not lose sight of the fact that she is seeking to establish in the minds of the children a feeling for the antiquity of the Chinese nation. She has already referred to the enlightened reforms introduced 3000 years B. C.; she has discussed the construction of one of the world's greatest wonders—the Chinese wall—to show the effectiveness of the government two centuries B. C.; she has presented the life and work of Confucius, the founder of Chinese literature, to establish the fact that ancient China possessed a high-grade literature; and lastly she takes up the inventions credited to China—all to show in a concrete way that at the time when Europe was but a battle-field for barbarian hordes China presented many of the aspects of a great and enlightened nation pursuing the arts of peace.

Lesson Unit II: China is a densely populated country along the seaboard and the main waterways of the interior.

READING LIST:

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| **Pratt, China..... | pp. 42-47, 67-74, 85-89, 91-98. |
| Smith, Village life in China..... | pp. 17-19. |
| Smith, Chinese characteristics..... | pp. 19-26, 144-51. |
| **Andrews, Seven little sisters..... | pp. 57-70. |
| Carpenter, Asia..... | pp. 105-07, 111-20, 134-41, 143-45. |
| Krout, Two girls in China..... | pp. 52-56. |
| **Miller, Little people of Asia..... | pp. 344-46. |
| Rupert, Geographical reader..... | pp. 282-90. |
| Smith, Life in Asia..... | pp. 144-45, 158-60. |
| Stoddard, Lectures, Vol. III..... | pp. 230-35, 246-49, 268-70, 295-96, 308-14. |
| Fielde, A corner of Cathay..... | pp. 1-13, 14-23. |
| Holcombe, Real Chinaman..... | pp. 310-29. |
| Seidmore, China: The long-lived empire..... | pp. 14-15. |
| Youth's Companion series, Toward the rising sun..... | pp. 29-35. |
| *Bunker, China..... | pp. 12-15. |

Suggestions: The references cited under this unit can be grouped around three topics, each of which affords the basis for the drawing of an inference as to the crowded condition of the Chinese people. These topics are: (1) Life on the river boats; (2) Traveler tales of crowded streets and paths; and (3) Instances of the extreme economy of the people in the field and in the home, rendered necessary by the enormous population to be supported by the land.

Concerning the first topic, bring out in discussion that thousands of families have been crowded off the land and forced to live in houses built on rafts and boats which float on the rivers and on the canals. A discussion of the customs and ways of these boat peoples and their methods of earning a livelihood will serve to emphasize this thought.

The references to the economy which the people practice if discussed will give the children a vivid picture of the crowded condition of the plains of China. In concluding this unit draw a comparison between the population

of the United States and China, pointing out that if the whole population of the United States and forty millions more were crowded into the State of Texas, the density of population would be about equal to that of the low plains of China.

Lesson Unit III: The Chinese people, as a whole, are characterized by conservatism and nonprogressiveness.

READING LIST:

- **Andrews, Seven little sisters..... pp. 65-67.
 Carpenter, Asia..... pp. 107-11, 143-54, 156-57.
 Holcombe, The real Chinaman..... pp. 80-83, 102-103, 135, 171-79, 216-85.
 Krout, Two girls in China..... pp. 49-51, 59-60, 75-76, 85-89, 101-102, 112-16, 154-63.
 Knox, Japan and China..... pp. 332-34, 417.
 **Lee, When I was a boy in China..... pp. 46-49, 50-62.
 **Miller, Little people in Asia..... pp. 307-308, 316-18, 340.
 **Miln, Little folks of many lands..... pp. 190-91, 193-200, 201-15.
 Scidmore, China: The long-lived empire..... pp. 14-19, 180-89, 452.
 Stoddard, Lectures, Vol. III..... pp. 253-58, 305-308, 326-32.
 Fielde, A corner of Cathay..... pp. 1-13, 49-70, 94-110.
 **Pratt, Stories of China..... pp. 49-51, 67-70, 129-31, 179-94.
 Smith, Village life in China..... pp. 44-48, 35-43.
 Smith, Chinese characteristics..... pp. 28-29, 33-40, 102-103, 122-24, 300-302.
 Smith, Life in Asia..... pp. 142-44, 166-70.
 Van Bergen, Stories of China..... pp. 44-51, 96-104.
 Youth's Companion series, Toward the rising sun.... pp. 36-44.
 Munroe, The Blue Dragon..... (Fiction).
 Headland, Our little Chinese Cousin
 *Bunker, China pp. 15-23.

Suggestions: The teacher can find in her supplementary reading a great many concrete details which will bring out the idea of conservatism and non-progressiveness as applied to the Chinese. Instead of having the reading done in a desultory manner, it is best to organize it along a few lines, to give greater definiteness and vividness to the child's impressions. The references given above have been selected with this thought in mind. The teacher will find that the material given above can be organized under the following heads, which best illustrate Chinese love of tradition: (1) The practice of foot-binding; (2) Methods employed in manual labor; (3) Chinese ways of transportation and their attitude toward the railroad; (4) Ceremonial life; (5) Educational customs and practices. Discuss as many of these topics as time and your facilities will permit.

Bring out in connection with the first topic that according to Chinese tradition if a girl were to grow up without conforming to the custom of foot-binding she would not be recognized as a lady, and would thereby disgrace her father's name. Such a force has the custom become that women undergo not only inconvenience but great physical suffering rather than break with tradition. Emphasize the Chinese view of the custom in order to make it clear to the children how difficult it is for the Chinese to break away from the custom.

Regarding the second topic, bring out the thought that only the simplest and rudest machinery either in the arts or in agriculture is ever used, and that the time required by hand processes makes everything intrinsically costly. This is particularly apparent in connection with her tea trade, which she is fast losing because India and Ceylon have introduced labor-saving machinery, and therefore can produce tea more cheaply.

In methods of travel China's conservatism is particularly noticeable. The demands of the millions of people in Northern China are satisfied, just as they were thirty centuries ago, by the two-wheeled carts made without seats or springs. In the south the sedan-chair is the principal mode of conveyance, while in other parts of the empire immense wheelbarrows loaded with passengers and goods are familiar sights. Their hatred of innovation is particularly well brought out in their attitude toward the introduction of the railroad, related in Scidmore's *China: the long-lived empire* (p. 220), to the effect that after patronizing it for a time the Chinese finally bought it from its owners, tore up the rails and threw them into the river, and sent the locomotives to Formosa, where they rusted on the beach. However, it should be brought out that foreign enterprise has finally succeeded in a measure in overcoming this prejudice, and that several hundred miles of road are now in use in China.

A lesson can be spent profitably in discussing Chinese ceremonial life, bringing out the utter lack of reason in the mass of forms and ceremonies, and how the rigid exaction of these customs tends to retard the progress of the people. Have the children tell about the quaint ceremonies performed when the child first enters school, about the studies he pursues, and about the queer way the children have of studying aloud and reciting with their backs turned toward the teacher. Bring out in discussion that the course of instruction consists of a study of the writings of Confucius, and that while their studies everywhere admonish the student to be good and just and honest, no mention is ever made of telegraphy, railroading, surgery, or of anything pertaining to present-day Western civilization, and that in consequence the many years spent in study in no way fits the student for the duties he is expected to perform in official life.

Throughout the discussion of this and of all other topics the teacher must remember that she is presenting details not so much for their own sake as for the purpose of establishing the general notion in the child's mind that the Chinese people are conservative and nonprogressive in the extreme.

Lesson Unit II: The conservatism of the Chinese race is largely due to their religion of ancestor worship, which leads them to cherish the past and the ways of the past.

READING LIST:

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|---|----------------------------------|
| Butterworth, Traveler tales of China..... | pp. 58-83, 84-88. |
| Holcombe, Real Chinaman..... | pp. 123-25, 34-35, 43-45, 89-92. |
| Krout, Two girls in China..... | pp. 118-19, 139-40, 144-45. |
| **Miln, Little folks of many lands..... | pp. 189-91. |
| **Pratt, Stories of China..... | pp. 126-31, 160-65. |
| Smith, Chinese characteristics..... | pp. 171-85. |
| Smith, Life in Asia..... | pp. 163-65. |
| Carpenter, Asia..... | pp. 123-25. |
| Fielde, A corner of Cathay..... | pp. 82-86. |
| **Lee, When I was a boy in China..... | pp. 18-21. |
| Stoddard, Lectures, Vol. III..... | p. 302. |
| *Bunker, China | pp. 23-28. |

Suggestions: Ancestor worship has its good and bad sides. In effect, it is a chain which binds the present generation to the generations of the past.

The highest idea of the present is to imitate the past. This is the explanation of what at first seems blind and obstinate adherence to tradition. In presenting the details given in the reading references the teacher's presentation is primarily not for the interest which the details will give, but on account of their significance in accounting for Chinese antagonism to Western ways.

Bring out the good side of this custom of ancestor worship. This lies in the respect and care which the Chinese people exercise toward their parents. Have the children tell the stories to be found in the references cited which illustrate the respect and care which the younger members of the family show to their elders. Have the children draw a contrast between the relation of parents and children as it exists in China and America.

Lesson Unit I: China is a region which is famous for its production of rice, tea, and silk.

READING LIST:

- | | |
|--|---------------------------------|
| Chamberlain, How we are fed..... | pp. 70-76. |
| * Andrews, Seven little sisters..... | pp. 61-63, 69-70. |
| Carpenter, Asia..... | pp. 66-67, 148-50, 150-52, 200. |
| Krout, Two girls in China..... | pp. 44-45, 67-68, 198-203. |
| Smith, Life in Asia..... | pp. 151-56. |
| Butterworth, Traveler tales of China..... | pp. 204-19. |
| Beal, Information reader, Vol. I..... | pp. 252-55. |
| * Pratt, China..... | pp. 51-60. |
| Scidmore, China: The long-lived empire..... | pp. 365-76. |
| Chase and Clow, Information reader, Vol. II..... | pp. 49-58. |
| Companion series, Talks about animals..... | pp. 144-49. |
| Chamberlain, How we are clothed..... | pp. 25-30. |
| * Andrews, Each and all..... | pp. 91-95. |
| Clifford, Information reader, Vol. II..... | pp. 19-29. |
| * Kirby, Aunt Martha's corner cupboard..... | pp. 14-60, 121-34. |
| * Webster, General history of commerce..... | pp. 491-94. |
| * Trotter, Geography of commerce..... | pp. 319-24. |
| * Adams, Commercial geography..... | pp. 414-26. |
| * Bunker, China..... | pp. 28-34. |

Suggestions: Bring out in the discussion of the references on rice culture how the growing grain requires a great deal of moisture and warmth, how it is cut by hand in China, how it is threshed out and hulled by crude and laborious processes, how the rice grains are polished to make them more marketable, and finally, by way of contrast, what improvements have been introduced in its cultivation and preparation for market in our own country.

In beginning the discussion of the tea industry have the children relate some of the pretty legends which are told in the tea countries of its origin. Several of the references given above will furnish the material for this. Discuss the tea-shrub, how it is cultivated and the soil and climate which it requires, and how its leaves are picked and prepared and marketed. Contrast the methods employed in China with those in India, bringing out that while China's methods are crude and laborious India has introduced the most modern machinery. What is the effect on the cost of production? How will this effect China's trade when brought into competition with India? In reality China's aversion to modern methods has resulted in greatly reducing her tea trade. At this point take a wider view and learn something of the world's

demand for tea and what countries are engaged in its production. These consist in the main of China, Japan, Ceylon, Java, and Natal in Africa.

Sericulture should be treated similarly. First, details regarding the silk-worm and the manufacture of the product, and, second, the regions of the world producing the silk. It might be noted that since so much hand labor is necessary in rearing and feeding the worms and in reeling the silk, and since labor is so cheap in China, no nation can ever seriously compete with her in this industry. For instance, it could never be extensively produced in the United States on account of the high wages demanded by laborers, yet in its manufacture of silk goods the United States leads the world. Hence it is a very large importer of the raw material.

A STUDY OF KOREA.

Map Locations (to be taught first): The peninsula; Yalu River; Seoul; Japan; Yellow Sea, China Sea, Japan Sea.

Lesson Unit I: The country and its people.

READING LIST:

- Gifford, *Everyday life in Korea*..... (Parts).
 Carpenter, *Asia*..... pp. 76-92.
 Rupert, *Geographical reader*..... pp. 294-96.
 Herbertson, *Asia*..... pp. 261-64.
 Youth's Companion series, *Toward the rising sun*.... pp. 53-56.
 Smith, *Life in Asia*..... pp. 232-41.
 Starr, *Strange peoples*..... pp. 76-81.
 Underwood, *Fifteen years among the Top-knots*..... (Parts).
 Hamilton, *Korea*..... (Parts).
 **Shaw, *Big people and little people of other lands*.... pp. 37-45.
 *Griffs, *Korea: The hermit nation*..... (Parts).
 *Bishop, *Korea and her neighbors*..... (Parts).

Suggestions: Have the children relate how Korea has been closed to foreigners until recently, and how the United States forced the country to open its doors to the West. Talk about the queer customs of the people.

Lesson Unit II: Korea's place in the present struggle between Russia and Japan.

READING LIST:

- Gale, *Korean sketches*..... (Parts).
 Van Bergen, *Story of Japan*..... pp. 24-28, 79-85.
 Tarr and McMurry, *Bk. III*..... p. 405.
 Youth's Companion series, *Toward the rising sun*.... pp. 45-52.
 Smith, *Life in Asia*..... pp. 232-41.
 Hamilton, *Korea*..... (Parts).

Suggestions: Point out that because of Korea's position geographically she is of great value to Russia, China, and Japan. Discuss the war between China and Japan (1894) over the control of Korea, and how each of the two countries claimed to be guarding the interests of Korea, but that the real object of each was to prevent the other from seizing Korea. Similarly discuss the present struggle between Japan and Russia. Review in this connection the parts which have a bearing on this topic of the "Study of Turkey" (p. 43); also, "Study of Russia" (p. 51).

A STUDY OF THE JAPANESE EMPIRE.

Map Locations (to be taught first) : The location of the islands ; Formosa, Yesso, and Hondo ; Tokyo, Yokohama, and Nagasaki ; Japan, Yellow, and China seas ; Fujiyama.

Lesson Unit I: The Japanese Empire comprises nearly four thousand volcanic islands, which stretch over a distance of two thousand miles. This region is subject to frequent and violent earthquakes.

READING LIST:

- Stoddard, Lectures, Vol. III..... pp. 7-224 (Parts).
 Smith, Life in Asia..... p. 185.
 Carpenter, Asia..... pp. 15-19.
 Tarr and McMurry, Bk. III..... pp. 5-7.
 Johonnot, Geographical reader..... Part III.
 Clement, Modern Japan..... Chap. I.
 *George, Little journeys (China and Japan)..... (Parts).

Suggestions: Turn to the map in Tarr and McMurry (bk. III, p. 6) on which is shown the distribution of the volcanoes of the world. Note that while no part of the globe is entirely free from them, they are most numerous in a belt on either side of the Pacific Ocean. Note also on this map that the chain of islands comprising the Empire of Japan lies directly and wholly in this belt.

Have the children relate incidents of the terrible results of earthquakes and volcanic eruptions. The story of Vesuvius, of the earthquake of Lisbon in 1755, of Charleston in our own country in 1888, of the terrible earthquakes which Japan experienced in 1855 and in 1894, and of the eruption of Pelee in the Martinique Islands very recently, may be related as illustrations of the awful effects produced through these agencies.

Do not spend time on the causes of volcanoes and earthquakes, as they are not yet well understood.

An interesting line of thought could be taken up at this point by having the children find for themselves how the natives of volcanic countries have adapted the architecture of their habitations to avoid the danger from earthquakes. As an illustration, Japanese houses are all low, of one story, and constructed of very light materials, on account of this ever-present danger.

Bring out also that while Japan comprises only three islands of any considerable size, yet the empire contains nearly four thousand smaller islands, which extend a distance of two thousand miles, and have a climate ranging from the tropical in the south to one of ice and snow in the north. Have the children turn to page 157 of the advanced text and note the area and population of the Japanese Empire. Compare with California and the United States. Draw the conclusion that a population of more than one half that of the United States lives in an area no greater than that of the state of California.

Lesson Unit II: Japan is noted for its production of silk, rice, and tea, also for the skill of its manufacturers.

READING LIST:

- *Trotter, Geography of commerce..... pp. 326-29.
 Bramhall, The wee ones of Japan..... (Parts).
 **Miller, Little people of Asia..... pp. 360-405.
 *Webster, General history of commerce..... pp. 494-500.
 **George, Little journeys (China and Japan)..... (Parts).
 *Adams, Commercial geography..... pp. 406-13.
 Carpenter, Asia..... pp. 59-75.
 Herbertson, Asia..... pp. 264, 279-81.
 Starr, Strange peoples..... pp. 88-100.
 Angus, The Eastern wonderland..... pp. 30-34.
 Clement, Modern Japan..... Chaps. II, III, IV.
 **Chance, Little folks of many lands..... pp. 95-112.
 **Allen, Children of the palm lands..... pp. 63-78.
 Stoddard, Lectures, Vol. III..... pp. 7-224 (Parts).
 **Wade, Our little Japanese cousin.....

Suggestions: Bring out in discussion that while the surface of the islands is mountainous and the entire group volcanic, yet the abundant rains of the region have washed great quantities of fertile soil into the river valleys. While less than one fifth of the land is under cultivation on account of the mountainous nature of the surface, yet that fifth is so carefully fertilized and tilled that it produces more than enough to feed Japan's entire population. Review the details regarding the production of silk, tea, and rice, which were suggested in the study of China (p. 66). Bring out further the following points: that rice is grown mainly in the coast lowlands on the west or rainy side, and that the grain is of such a superior quality that it is exported while an inferior and cheaper kind is imported from China for home consumption; that tea-gardens and plantations occupy the hillside areas in the southern islands, the product of which is valued above that of China, one kind indeed being worth from five to eight dollars per pound; and that the raw silk of Japan is likewise of a superior quality.

Regarding the manufacturing industries of Japan, bring out that they have advanced wonderfully in the last few years. The cotton mills employ seventy thousand people, while more than a million are engaged in textile manufacturing.

In connection with this topic it might be interesting to discuss the rivalry between the United States and England for the rich trade of Japan and the East. Until very recently England dominated the trade with both Japan and China. What advantage did the opening of the Suez Canal give her? Discuss also the advantage of her Trans-Canadian Railroad with its line of steamers connecting Vancouver and Yokohama. America is, however, awakening to the value of her port at San Francisco and its connecting railway and steamship lines. In 1900 the United States nearly doubled England's trade with Japan. What will be the effect of the Isthmian canal in this trade rivalry? The answer lies in the fact that Japan wants our cotton chiefly and that the canal will bring the cotton States nearer Japan. Will the canal divert America's trade with the Orient from California, or will it increase her share in it?

Lesson Unit III: Japan's advancement, which has been extraordinarily rapid, dates from the time the United States forced her to open her ports to the people of the West.

READING LIST:

- **George, Little journeys (China and Japan)..... (Parts).
- Stoddard, Lectures, Vol. III..... pp. 7-224 (Parts).
- Smith, Life in Asia..... pp. 181-83, 187.
- Carpenter, Asia..... pp. 23-24, 31-33.
- Van Bergen, Story of Japan..... pp. 191-206, 207-34, 259-64, 280-84.
- State series, Third reader (Recent adoption)..... pp. 74-79.
- Tarr and McMurry, Bk. III..... pp. 408-10.
- Youth's Companion series, Toward the rising sun.... pp. 57-76.
- Angus, The Eastern wonderland..... Chaps. VII, VIII.
- Clement, Modern Japan..... Chaps. VII, VIII, XIX, XX.
- *Ayrton, Child life in Japan..... (Stories).—
- *Nitobe, Bushido: The soul of Japan..... (Parts).
- Morris, Historical tales: Japan and China..... (Parts).

Suggestions: Discuss the details of Commodore Perry's expedition to Japan, the reasons for it, and the immediate results. Talk about what Japan was when the expedition was made, and, by way of contrast, what Japan is now. In connection with this last point many illustrations will occur to the teacher which will show Japan's progress. Among them may be mentioned the following: She has recently built thirty-five hundred miles of railroads, fourteen thousand miles of telegraphs, and over fifteen hundred miles of telephones. Her merchant marine contains over eleven hundred steamers, nineteen hundred sailing-vessels of European type, and about nineteen thousand native craft. Many illustrations can be drawn also from Japan's progress in scientific agriculture, from her educational plans, and from her military prowess, equipment, and skill.

Lesson Unit IV: Japan is ruled by an Emperor, who, though paramount and unquestioned in all matters of government, is aided by a cabinet and by two legislative bodies.

READING LIST:

- Carpenter, Asia..... pp. 43-50.
- Tarr and McMurry, Bk. III..... pp. 407-408.
- Angus, The Eastern wonderland..... Chap. X. (Parts).
- *Clement, Modern Japan..... Chaps. IX, X.
- Stoddard, Lectures, Vol. III..... pp. 7-224 (Parts).
- **George, Little journeys (China and Japan)..... (Parts).

Suggestions: Bring out that the upper house comprises members selected from among the hereditary nobility and from those chosen by the Emperor for conspicuous merit in civil and military life; and that the members of the other are elected by the people. The cabinet consists of nine ministers of state, appointed by the Emperor, and to whom they are alone responsible. Compare with the Congress of our own country.

THE CONTINENT OF AFRICA.

Map Locations (to be taught first) : Atlas Mountains, African highlands. Kong Mountains; Nile, Congo, Niger, Orange, Zambesi (rivers); Victoria, Tanganyika, Nyassa (lakes); Sahara, Soudan, Barbary (states) (as a whole), Egypt, Congo region, Abyssinia; Cairo, Alexandria, Pretoria, Cape Town, Morocco, Algiers; Madeira, Canary Islands, Island of St. Helena, Madagascar; Cape Verde, Cape of Good Hope; Red Sea, Indian Ocean, Antarctic, Atlantic, Gulf of Guinea, Suez Canal, Mediterranean.

The structure of the continent (to be given next) : Have the children turn to the physical map (advanced text, p. 144) and note that the southeastern half of Africa is a continuous plateau and that from this great plateau three roughly parallel spurs extend far to the northwest—one along the Red Sea, one through the center of the great lowland region, and one along the Atlantic Coast. Next note the position of the continent with respect to the equator and the tropics. In consequence of its position, what will be the temperature of the greater portion of the continent? Turn to the rainfall map on page 26 of the advanced text. Note the direction of the prevailing winds, and also the region of the greatest rainfall. Compare this map with the map on page 144 of the advanced text, noting the drainage systems, particularly those of the Nile, Congo, Niger, Zambesi, and Orange. Have the children model these structural features in sand. As a test, require them to draw outlines of the continent on the board and locate the equator and the tropics, and put in arrows showing the direction of the prevailing rain-bearing winds. Show by shading the region of highlands with the three spurs to the north, the regions of greatest rainfall, of no rainfall, and the five drainage basins already mentioned. (This outline comprises all the essentials given in the advanced text's treatment of structure, pp. 145, 146).

A STUDY OF THE MEDITERRANEAN COAST REGION.

(BARBARY STATES.)

Map Locations (to be taught first) : Morocco, Algeria, Tunis, Tripoli, Atlas Mountains; Sahara, Egypt; Mediterranean, Straits of Gibraltar; Madeira, Canary Islands.

Lesson Unit I: The inhabitants of this region are mostly Mohammedans. On the whole they are treacherous and cruel. Until recently this region was famed for its pirates, who exacted ransom from civilized nations.

READING LIST:

Herbertson, Africa.....	pp. 5-29.
Bruce, Round Africa.....	pp. 41-64.
Knox, Levant.....	Chaps. I-IX, XI-XIV.
Tarr and McMurry, Bk. III.....	pp. 440-43.
Starr, Strange peoples.....	pp. 123-27.
Badlam, Views in Africa.....	pp. 483-84, 488-90.
Rupert, Geographical reader.....	pp. 340-41.
Ingersoll, The book of the ocean.....	pp. 171-85 (Parts).

Suggestions: Bring out in discussion the fact that until recently the ports of these states were infested with pirates, who in their swift armed vessels would lie in wait to capture and rob ships of the Christian nations, carrying off their crews and passengers to be sold as slaves or to be held until ransomed by the payment of money. Have the details of the exploit of Lieutenant Decatur in the port of Tripoli related, bringing out particularly the intolerable conditions which prevailed at that time and which brought about decisive action by the United States.

Bring up the recent incident of the capture for ransom of Mr. Perdicarus, an American resident of Morocco, to illustrate the treacherous nature of the natives and the unsettled condition of their government even in the present day. (For the details of this capture see the Outlook, Review of Reviews, World's Work, and other magazines of a similar nature, for the months of May, June, and July, 1904.)

Regarding Mohammedanism, see the "Study of European and Asiatic Turkey" (p. 49). Review the details of the presentation therein suggested. Point out that Mohammedanism is spreading very rapidly in Africa at the present time. More than ten million converts have been added to Mohammedan ranks during the past decade. The teaching of the Koran appears to appeal very forcibly to the ignorant and superstitious natives of Africa because of its ritualistic form of worship. The most rapid progress in the spread of the religion is being made in the Soudan region.

Lesson Unit II: The government and commercial importance of the region.

READING LIST:

Tarr and McMurry, Bk. III.....	pp. 440-44.
Badlam, Views in Africa.....	pp. 30-36, 451-500.
Knox, Levant.....	Chaps. I-IX, XI-XIV.
Trotter, Geography of commerce.....	p. 348.
Adams, Commercial geography.....	pp. 455-60.

Suggestions: In summary bring out the thought that while all of these countries at one time were tributary to Turkey she now retains only Tripoli; that France is paramount in Algeria and Tunis, while Morocco is independent, owing to the jealousies of the great powers. Point out that these countries are only partially developed; that excepting northern Algeria and Tunis there are no railroads and only caravan trails; and that industrial activity is limited to agriculture, carried on most primitively, and the handling of desert products.

A STUDY OF THE SAHARA REGION.

Map Locations (to be taught first): Locate the region on the map.

Lesson Unit I: It is a region of rolling, sandy wastes, broken only at great intervals by oases. The desert is sparsely peopled by wandering tribes of Arabs.

READING LIST:

- Badlam, Views in Africa..... pp. 19-29, 366-88, 496-500.
 Johnnot, Geographical reader..... pp. 187-90.
 Tarr and McMurry, Bk. III..... pp. 419-21, 427-30.
 Knox, Levant..... Chap. X.
 Sommerville, Sands of Sahara..... (Parts).
 Youth's Companion series, Under sunny skies..... pp. 108-13.
 Williams, The romance of modern exploration..... pp. 136-59, 205-13, 238-48.
 *Trotter, Geography of commerce..... pp. 241, 346.
 *Adams, Commercial geography..... p. 461.

Suggestions: The principal thing to be gotten from the study of this region is the feeling for the vastness of the desert, for its hardships, and for the characteristic products and modes of desert life. This can be gotten only from a reading of descriptions and of adventures which have occurred therein.

A STUDY OF THE REGION OF THE NILE.

Map Locations (to be taught first): Alexandria, Cairo; Red Sea, Mediterranean, Suez Canal; Nile River; Sahara.

Lesson Unit I: The ancient civilization of Egypt.

READING LIST:

- Badlam, Views in Africa..... pp. 500-505, 516-44.
 Knox, Egypt and the Holy Land..... pp. 97-132, 204-25.
 Rupert, Geographical reader..... pp. 335-38.
 Johnston, The Nile quest..... (Parts).
 Johnnot, Geographical reader..... pp. 287-99.
 Tarr and McMurry, Bk. III..... pp. 434-36.
 Steevens, Egypt in 1898..... pp. 223-32, 243-52.
 Arnold, Stories of ancient peoples..... pp. 7-76, 152-66.
 Ballou, Footprints of travel..... pp. 120-35.
 De Lanoye, Rameses the Great..... (Parts).
 Ober, Knockabout club (North Africa)..... (Parts).
 Stoddard, Lectures, Vol. II..... pp. 227-334 (Parts).
 Brooks, Chivalric days..... pp. 1 et seq.
 Henty, The cat of Bubastes..... (Fiction).
 *Adams, Commercial geography..... pp. 453-55.
 Gautier, The romance of a mummy..... (Fiction).

Suggestions: This topic is worth considerable attention. It can best be presented by discussing the visible remains of Egyptian civilization—the pyramids, sphinx, obelisks, tombs, etc. A description of these features, bringing out the immense labor involved, the purposes of construction, the time required to complete the several tasks, etc., will give something of an opportunity of touching in a concrete way the ancient civilization of Egypt. Point out that the records of Egypt which have been preserved in monument and temple go back to the very dawn of history; that in fact Egypt was both the

most ancient and the most durable nation the world has ever seen. Discuss the reasons why Egypt was able to maintain its continuity of government so long. The explanation lies largely in its geographical situation; the sea on the one hand and the great desert on the other were barriers which protected her from her enemies.

Associate with Egypt the familiar Bible stories of the region. (See "Study of European and Asiatic Turkey," p. 48.) Tell, or have the children tell, the story of Joseph, the story of the Israelites while in Egypt, and the story of their escape from bondage under the guidance of the great leader, Moses.

Lesson Unit II: The overflow of the Nile and its significance in the agricultural development of modern Egypt.

READING LIST:

Badlam, Views in Africa.....	pp. 506-16.
Johannot, Geographical reader.....	pp. 56-60.
Farr and McMurry, Bk. III.....	pp. 430-34.
Steevens, Egypt in 1898.....	pp. 94-105.
Knox, Egypt and the Holy Land.....	pp. 145-57.
Hale, Stories of discovery.....	pp. 188-201.
*Fenn, The Khedive's country	(Parts).
Herbertson, Africa.....	pp. 31-57.
Stoddard, Lectures, Vol. II.....	pp. 280-90.
Williams, The romance of modern engineering.....	(Parts).

Suggestions: Bring out in discussion that the Nile not only gives water to a rainless land, but it makes the soil of the region as well; that it flows a thousand miles without a branch solely from the impetus it gets from the rainfall of the Abyssinian Highlands (see physical map, advanced text, p. 144); that its flood plain, containing millions of inhabitants, is five hundred miles long and from five to fifteen miles wide, broadening at the delta to one hundred miles, and that the resources of the country are dependent wholly on the overflow of the river. Egypt's prosperity, however, is being greatly increased through the construction of extensive systems of irrigation. The country has been divided into five circles of irrigation—three in the delta and two in upper Egypt. A barrage has been built across the Nile at Caïro, another at Assiout, and a third, one and one quarter miles in length, at Assouan. By means of these dams the water of the Nile is conserved and distributed to parts of the desert not reached by the annual overflow. These new dams (the two latter) have added twenty-five hundred square miles to the cultivable area of Egypt. If properly controlled, these irrigation systems will make Egypt one of the richest countries in the world. The construction of these dams is one of the greatest engineering feats of the world, and will long be a fitting monument to the British occupancy of Egypt.

Discuss the difficulties overcome in the building of these dams, also the advantage to be gained through the enterprise. Bring out that the products which the region grows in greatest abundance are cotton, rice, wheat, and tobacco, and that irrigation will greatly increase the output of these products.

Lesson Unit III: The Suez Canal and its significance.

READING LIST:

- Badlam, Views in Africa.....pp. 506-16.
 Knox, Egypt and the Holy Land.....pp. 39-37.
 Rupert, Geographical reader.....pp. 323-25.
 Tarr and McMurry, Bk. III.....pp. 436-39.
 Herbertson, Africa.....pp. 57-58.
 Frith, The romance of engineering.....pp. 138 et seq.
 *Webster, General history of commerce.....pp. 390-91, 481, 487, 497.
 *Adams, Commercial geography.....pp. 42-44.
 *Trotter, Geography of commerce.....pp. 376-77.

Suggestions: After the interesting details of the construction of the Suez Canal have been related, discuss its value to the world's commerce. In this connection turn to the map on page 154 of the advanced text. Compare this route to India and the Far East with the Cape of Good Hope route with respect to distance. It has shortened the distance from Liverpool to Bombay, twenty-eight days; from Hamburg, twenty-nine days; from Marseilles, thirty days; from Genoa, thirty-two days; from Trieste, thirty-seven days; and from Alexandria, forty-three days. In consequence of the opening of this route the Mediterranean powers have recovered much of the commercial importance which they had before the discovery of the Cape route. The navigation problem which the canal and the Red Sea presents has also aided greatly in transforming the merchant marine of the nations using this route from sailing-vessels into steamships. The Cape route, on the other hand, was an impediment to steam navigation on account of the difficulties in coal-ing for such a long trip.

A STUDY OF THE KONGO REGION.

Map Locations (to be taught first): This region is that strip of the continent comprised between the Sahara and the Zambesi River. Locate Kongo River; Tanganyika, Victoria, and Nyassa lakes; African Highland; Kongo State.

Lesson Unit I: The climate, vegetation, products, and inhabitants of the region.

READING LIST:

- Ward, Five years with the Congo cannibals.....(Parts).
 Badlam, Views in Africa.....pp. 93-156, 388-451.
 Rupert, Geographical reader.....pp. 345-48.
 Tarr and McMurry, Bk. III.....pp. 451-58.
 Stockton, Tales out of school.....pp. 1-30.
 Du Chaillu, Lost in the jungle.....(Parts).
 Du Chaillu, Equatorial Africa.....(Parts).
 Du Chaillu, In African forest and jungle.....(Parts).
 Knox, Central Africa.....(Parts).
 Knox, On the Congo.....(Parts).
 Stanley, My dark companions.....(Parts).
 Hale, Stories of discovery.....pp. 202-20.
 Starr, Strange peoples.....pp. 128-34, 138-42.
 **Wade, Our little African cousin.....(Parts).
 Bruce, Round Africa.....Chap. III.
 Burrows, The land of the pygmies.....(Parts).
 **Chance, Little folks of many lands.....pp. 53-66.
 Herbertson, Africa.....pp. 60-99, 135-60.
 Williams, The romance of modern exploration.....pp. 160-204, 214-25.
 *Muller, The story of Akimakoo, an African boy.....(A story).
 Ballantyne, Gorilla hunters.....

Du Chaillu, Stories of a gorilla country.....	
Du Chaillu, My Apingi kingdom.....	
Frost, Modern explorers.....	pp. 74-100.
Jenks, The boy's book of explorations.....	Chaps. IV-XXI.

Suggestions: The characteristics of this region can best be brought out through reading and discussing accounts of some of the famous explorations of this part of the world. The best book for this part of the work is Jenks's *Boy's book of explorations*. Read and discuss the expeditions of Livingstone, Burton and Speke, Baker, Schweinfurth, Cameron, Stanley, and Thomson, pp. 84-333. Bring out in discussion particularly the nature of the climate, vegetation, animal life, and the products which are largely forest products and ivory. As far as time will permit, discuss also the natives and their customs and ideas, and the system of capturing and selling the natives into slavery which has long been practiced by agents of the Arabian slave-dealers.

A STUDY OF THE REGION OF SOUTH AFRICA.

Map Location (to be taught first): Locate the region on the map. The term is applied to that part of the continent south of the Zambesi River; Transvaal, Cape Colony, Rhodesia; Johannesburg, Pretoria, Cape Town.

Lesson Unit I: Stockraising, agriculture, and the mining of gold and diamonds are the chief occupations of the country.

READING LIST:

Chamberlain, How we are fed.....	pp. 226-29.	
Badlam, Views in Africa.....	pp. 166-80.	: 197-207.
Tarr and McMurry, Bk. III.....	pp. 446-51.	
Knox, Central Africa.....	pp. 404-17.	
Bruce, Round Africa.....	Chap. IV.	
Herbertson, Africa.....	pp. 193-230.	
Trotter, Geography of commerce.....	pp. 355-56.	
Adams, Commercial geography.....	pp. 47-76.	

Suggestions: Bring out in the discussion of these references that South Africa offers an inviting field for future commercial enterprises. Trotter, "Geography of commerce," p. 355, says: "Rich deposits of coal have been discovered in the Zambesi basin, iron and other metals undoubtedly exist in great quantities, and the Victoria Falls of the Zambesi River are scarcely second to the Niagara as a source of power. The temperate parts of Rhodesia and the land further south (Cape Colony) are adapted to stockraising and grain-growing. The gold and diamond mining interests already form leading industries in several sections of South Africa."

Turn to the map on page 144 of the advanced text and note the location of Cape Town. Bring out in discussion that by virtue of its position at the southern end of the continent it is destined to play much the same part in the commercial development of the interior of South Africa that New York has done in the United States.

Lesson Unit II: The government of South Africa, together with the natives—Boers and Kaffirs.

READING LIST:

- Badlam, Views in Africa..... pp. 268-76.
 Tarr and McMurry, Bk. III..... pp. 444-46.
 Starr, Strange peoples..... pp. 134-38.
 Statham, Blacks, Boers, and British..... (Parts).
 Devereux, Side lights on South Africa..... (Parts).
 *Bigelow, The children of the nations..... pp. 153-83.
 *Doyle, The great Boer war.....
 Davis, With both armies in South Africa.....
 Van der Hoogt, The story of the Boers.....

Suggestions: Refer to the recent war with the Boers. Bring out that until recently the Dutch were paramount in South Africa; that they settled Cape Town and spread over the neighboring regions; that later Cape Colony fell into British hands and many of the Dutch inhabitants "trekked" northward to a wild and unclaimed land where they built their homes and established two republics, the Transvaal and the Orange Free State; that they would have been left undisturbed but for the discovery of rich deposits of gold, which attracted British capitalists; that friction arose between the owners and the Boers, and that out of it grew the war the chief result of which was that the Transvaal and Orange Free State became in 1900 British colonies. Discuss some of the important details of this war. Read and talk about the picturesque figure of Oom Paul Kruger. Read parts of Olive Schreiner's *The story of an African farm* for a picture of the life of the Boers and of their relation to the Kaffirs.

AUSTRALIA AND THE ISLANDS OF THE PACIFIC.

Map Locations (to be taught first) : Australia, East Indies, New Zealand, Hawaiian Islands, Philippines; Indian Ocean, Pacific Ocean; Continent of Eurasia, Continent of North America.

The structure of the island continent (to be given next) : Turn to the map in the advanced text (p. 150) or to the map in Tarr and McMurry (bk. III, p. 462). Note the position of the island relative to the equator and the tropics. What is the inference regarding the temperature of the region? It is said that the desert interior sometimes reaches a temperature which is higher than that recorded in any other part of the world and a height which if long continued would destroy all life. "For three months Captain Sturt found the mean temperature to be over one hundred and one degrees Fahrenheit in the shade; and the drought during this period was such that every screw came out of their boxes, the horn handles of the instruments and combs split up into fine laminae, the lead dropped out of pencils, their hair and the wool of the sheep ceased to grow, and their finger-nails became as brittle as glass." (Wallace. Australasia.)

Note the unbroken character of the coast line. Discuss the bearing of this feature on the commercial activity of the region.

Next note that the island is fringed by a rim of mountains which often descend abruptly to the sea, thus rendering the island without extensive coastal plains. Note also that the eastern half of the island is much more mountainous than the western. Turn to the rainfall map (advanced text, p. 26). Observe that Australia lies within the belt of the southeast trade-winds. What part of the island will receive the greatest rainfall? Verify by consulting the map. Since the mountains of the interior are lower than those of the coast, what will be true of the rainfall of the interior as compared with the coast? Verify by examining the map. Note the desert region of the island and explain the conditions which have made it rainless. Draw the conclusion from your study of the structure of the island that while the greater portion of the region is deficient in rainfall, being either arid or actual desert, there are portions of the east coast which receive sufficient rainfall to support a heavy forest growth as well as enough for agricultural and grazing purposes.

A STUDY OF AUSTRALIA.

Map Locations (to be taught first) : Location of the island with respect to the continent, with respect to the East Indies. Locate Sumatra, Borneo, Philippines, Celebes, New Guinea, Moluccas, New Zealand, Hawaiian Islands, Tasmania; Auckland, Sydney, Melbourne, Adelaide; Gulf of Carpentaria; Darling, Murray rivers.

Lesson Unit I: Peculiar types of animal and vegetable life.

READING LIST:

- Williams, The romance of modern exploration..... pp. 365-84.
 Stockton, Tales out of school..... pp. 54-66, 238-40.
 Ballou, Footprints of travel..... pp. 63-65.
 Carpenter, Australasia..... pp. 44-52.
 Jenks, Boy's book of exploration..... pp. 391-430.
 *Pratt, Australasia..... pp. 23-31, 65-81.
 Knox, Australasia..... pp. 36-56.
 Herbertson, Australia and Oceania..... Part III (Parts).
 Knox, The land of the kangaroo..... pp. 49-66, 83-99, 115-30, 146-57, 218-32, 233.
 Kellogg, Australia pp. 13-74.
 Tarr and McLurry, Bk. III..... pp. 461-85.

Suggestions: Bring out in discussion that in Australia both the vegetable and animal life present features altogether different from that of other continents, and that in these respects Australia has comparatively little in common with the rest of the world. Point out that just as Asia has its tundras and steppes, America its prairies, Africa its deserts, so Australia has one feature of vegetation peculiar to itself, and that is its "scrubs." The references cited above will bring out the character of this growth. Read to the children the account of the terrible hardships experienced by two Australian pioneers who were lost in the "bush." (See Wide World, April, 1899; also, Jenks, citation above.)

The animal life of the region presents greater anomalies and peculiarities than even the plants. One group of animals, those with pouches, are peculiarly Australian, as the only representative in any other part of the world is the opossum of America. This group is quite varied, consisting of pouched bears, pouched kangaroos, which live in the trees like monkeys, and the larger kind which are confined to earth. Besides, there are curious animals which lay eggs like birds, as, for instance, the platybus and echidna. Discuss the habits of these animals and bring out the characteristics which they have in common, yet which isolate them from the remainder of the animal world.

Lesson Unit II: The aborigines of Australia—the Bushmen.

READING LIST:

- Ballou, Footprints of travel..... pp. 71-80.
 Carpenter, Australia..... pp. 60-65.
 **Pratt, Australasia..... pp. 45-64.
 Knox, Australasia..... pp. 81-100.
 Herbertson, Australia and Oceania..... Part III (Parts).
 Knox, The land of the kangaroo..... pp. 75-78, 100-14, 131-45.
 Rupert, Geographical reader..... pp. 358-64.

Suggestions: Bring out in connection with this topic that the aborigines of Australia differ widely from the native races of other countries. Like the plants and animals of this country, they are the remnants of an ancient and unknown age. No theory concerning their origin has yet been satisfactorily proven. The natives are without traditions, without monuments, and without writings, and hence their origin is shrouded in complete mystery. Point out that these peoples are held to be the most primitive people now existing, and that they are living in a stage of culture corresponding to the old stone age of primitive European man. Although inhabiting a land rich in ores, the use of metals has remained unknown to them. They have no knowledge of pottery, and have never made earthenware vessels in which to cook their food. They have no taste for form or delicacy of fancy in the ornamentation of their woven work. Only in one respect are they in advance of European cavemen,—namely, in the possession of a domestic animal, the dingo. Bring out that these people are nomads, and that they have neither cattle nor horses nor any kind of draught or riding animals; that they are so low down in the scale of intelligence as not to be able to count more than five; and that they are incapable of forming abstract ideas, and therefore have no words in their language to express them. Yet they show remarkable skill in the chase. Discuss here the boomerang,—how it is constructed, how thrown,—and relate incidents to show the children what skill they have acquired in using it.

The last point in this connection to be brought out is the fact that the aboriginal population of Australia is becoming relatively very small, and that in consequence Australia, unlike most other countries, is practically without a "race problem." Point out that the adjustment of relation between white man and black is one of the hard problems of the United States, of Africa, and of India, whereas in Australia the aborigines are of such inferiority and relatively so few in point of numbers as to merely call for kindly consideration and to present no problem at all to the statesman.

Lesson Unit III: The characteristic products and occupations of the country.

READING LIST:

- | | |
|--|---|
| Ballou, Footprints of travel..... | pp. 62-80. |
| Carpenter, Australia..... | pp. 24-34, 39-44, 79-82. |
| Herbertson, Australia and Oceania..... | pp. 98-99, 101-103, 114-18, 120-21, 131-33. |
| *Pratt, Australasia..... | pp. 95-102. |
| *Knox, The land of the kangaroo..... | pp. 173-80, 298-318. |
| *Bigelow, The children of the nations..... | pp. 314-30. |
| Rupert, Geographical reader..... | pp. 355-58. |
| Kellogg, Australia..... | pp. 52-74. |
| *Webster, General history of commerce..... | pp. 500-501. |
| *Trotter, Geography of commerce..... | pp. 759-63. |
| *Adams, Commercial geography..... | pp. 135-44. |

Suggestions: Point out that of the two great sheep-rearing centers of the world, Australia and Argentina, both are at about equal distances south of the equator and have essentially the same climate. Give an idea of the magnitude of the industry (see reference to Carpenter, Australia), bringing out that in

1901 the production of wool amounted to more than five hundred million pounds, as against four hundred million pounds in Argentina.

Australia's trade in frozen mutton since cold-storage plants have been put into the vessels of the steamship lines has developed to enormous proportions, amounting now to more than \$18,000,000 annually. Inasmuch as the transportation is almost wholly by water, the cost is very slight. On this account mutton is frequently sold in London at less than four cents per pound. Note the other countries besides Argentina and Australia which are largely engaged in sheep-raising. (See Tarr and McMurry, bk. III, p. 526.) Note the rank of Australia in the world's production of wool. Compare with our own. Have the children shade in on outline maps the wool-producing regions of the world.

In connection with the production of gold take up the details of placer and quartz mining. (See handbook, part I, unit No. 2, "Pacific Region.") Bring out that Australia is still a great gold-producing region, outranking the United States, and standing next to South Africa in its output. Owing to the lack of water, hydraulic mining has never been carried on in Australia as in California. By way of summary discuss the gold-bearing regions of the world, and have the children shade in an outline map showing these regions. (See Tarr and McMurry, bk. III, p. 530.)

A STUDY OF NEW ZEALAND.

Map Location: (to be taught first): Auckland, Wellington; Tasmania, Australia.

Lesson Unit I: The state experiments in government.

READING LIST:

- Carpenter, Australia..... pp. 73-90 (Parts).
- Francis, The isles of the Pacific..... Chaps. IV, V, VI.
- *Bigelow, The children of the nations..... pp. 314-29.
- *Reeves, State experiments in Australia and New Zealand.
- *Lloyd, A country without strikes.

Suggestions: New Zealand, and in a lesser degree Australia, is attracting the attention of the world because of the experiments in state government which are there being tried. Its people have passed a state compulsory arbitration law which has done away entirely with strikes, which were very frequent before the passage of the law. They have organized a state bureau of labor which acts as an intermediary between employers of labor and the unemployed. In seeking to provide labor for the unemployed this bureau, when necessary, advances carfare to those who must travel a distance to secure employment. In times of drought or calamity the government inaugurates a system of public work for the purpose of giving the men a chance to earn a little. For more than ten years the right of suffrage has been ex-

tended to every woman citizen over the age of twenty-one. In 1898 the country passed a law granting pensions to aged people who were poor and unable to work. Discuss these points with the children of the upper grades. Compare with our own government in these particulars and emphasize the high ground which New Zealand has taken in all these matters.

A STUDY OF THE EAST INDIES.

Map Locations (to be taught first): The Group; Borneo, Sumatra, Java, Celebes, Moluccas, Philippines; Singapore, Batavia. Manila; China Sea, Strait of Malacca.

Lesson Unit I: The East Indies are volcanic in origin and are subject to violent earthquakes. Politically, these islands, with the exception of the Philippines and parts of Borneo and Timor, are the possession of Netherlands, and comprise what is called the Dutch East Indies.

READING LIST:

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|---|---------------------|
| Tarr and McMurry, Bk. III..... | pp. 480-82. |
| Kellogg, Australia..... | pp. 350-54. |
| Carpenter, Australia..... | pp. 222-23, 226-28. |
| Knox, Siam and Java..... | pp. 374-86, 425-28. |
| *Bigelow, The children of the nations..... | pp. 153-68. |
| Higginson, Java: The pearl of the East..... | pp. 28-30, 37-45. |
| Johannot, Geographical reader..... | pp. 330-37. |

Suggestions: For the discussion of the volcanic nature of these islands see suggestions under "Japan" (p. 68).

Regarding the point that most of these islands are colonies of the Netherlands, bring up for discussion their commercial value to the home country. As a matter of fact, these colonies afford the chief basis of Holland's extensive foreign commerce. Four fifths of their products are sent to her for consumption and reforwarding, while in exchange the islands receive large quantities of cottons and other goods. The Dutch Government also receives an import tax of six per cent and a small export tax on nearly all articles except sugar. (See "Study of the Kingdom of the Netherlands," p. 22.)

Lesson Unit II: The East Indies have long been famous for their production of spices, though coffee, tea, rice, and tobacco are important products of some of the islands. It was the desire for these valuable spices particularly which led Europe during the Middle Ages to send many expeditions to the East.

READING LIST:

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|---|-----------------------------|
| Carpenter, Australia..... | pp. 224-27, 238-48, 254-56. |
| Chase and Clow, Stories of industry, Vol. II..... | pp. 149-55. |
| Kellogg, Australia..... | pp. 366-68, 374-78. |
| Herbertson, Australia..... | pp. 7-11, 29-31, 32-35. |
| Youth's Companion series, Toward the rising sun.... | pp. 115-28. |
| Knox, Siam and Java..... | pp. 387-93, 411-21. |
| **Allen, Children of the palm lands..... | pp. 135-68. |
| Williams, The romance of modern exploration..... | pp. 119-35. |
| **Wade, Our little brown cousin..... | |

Suggestions: These references give in considerable detail the methods which the inhabitants employ in producing and marketing nutmegs, indigo, pepper, rice, tobacco, sago, cloves, etc. These references should be read and discussed in the class.

For suggestions regarding early European voyages to this region, see the treatment of India (p. 60).

A STUDY OF THE PHILIPPINE ISLANDS.

Map Locations (to be taught first): The situation of the group; Luzon, Mindanao, Negros; Manila; China Sea; East Indies.

Lesson Unit I: The Philippines, comprising nearly four thousand islands, for four hundred years one of Spain's richest colonies, is now a dependency of the United States.

READING LIST:

- *Alexander, A brief history of the Philippines..... (Parts).
- Carpenter, Australia..... pp. 153-61.
- Halstead, The Philippine Islands..... (Parts).
- Carroll and Jerome, Philippines..... pp. 196-99.
- *George, Little journeys (Hawaii and the Philippines)... Part II, pp. 1-88.
- Knapp, Story of the Philippines..... pp. 13-40, 162-86.
- Kellogg, Australia..... pp. 378-83.
- Lawler, The story of Columbus and Magellan.....
- *Lodge, The war with Spain.....
- Towle, Magellan.....
- MacClintock, The Philippines..... pp. 69-75.
- Youth's Companion, Greater America..... pp. 67-84, 168-19.
- Hale, Stories of discovery..... pp. 59-85.
- Stevens, Yesterdays in the Philippines..... (Introduction).
- Van Bergen, Tales of our new possessions..... (Parts).
- Brooks, The story of our war with Spain..... (Parts).
- Butterworth, Story of Magellan..... pp. 182-235.
- Johnson, The world's discoverers..... pp. 119-77.
- *Bigelow, The children of the nations..... pp. 45-73, 84-93.
- Herbertson, Australia and Oceania..... pp. 22-23.
- *Robinson, The Philippines..... (Parts).

Suggestions: Spain's claim to this group of islands dates from their discovery by Magellan, who sailed in the interest of Spain. Have the children recall the details of Magellan's expedition, and particularly the incidents which occurred in these islands. Point out that this group of islands has remained under the dominion of Spain continuously until the recent Spanish-American war.

Have the children read and relate the well-known incidents which led up to the outbreak of the war; of the battle of Manila Bay; of the conquest of Cervera's fleet in the West Indies; and the most important provisions of the treaty of peace which terminated the war. On this last point bring out that under this treaty Spain gave up all claim to Cuba; that she ceded to the United States Porto Rico and all other of her islands in the West Indies, the island of Guam, and the Philippine group. On the other hand, because Spain had incurred obligations on behalf of these islands, the peace commission decided that the United States should pay Spain the sum of twenty million dollars by way of remuneration.

Lesson Unit II: The present government of the islands.

READING LIST:

- *George, Little journeys (Hawaii and the Philippines).. Part II, pp. 10-15.
- Knapp, Story of the Philippines..... pp. 273-86.
- MacClintock, The Philippines..... pp. 97-103.
- Youth's Companion, Greater America..... pp. 98-108.
- Starr, Strange peoples..... pp. 156-63.
- Stevens, Yesterdays in the Philippines..... (Parts).
- Van Bergen, Tales of our new possessions..... (Parts).
- Carpenter, Australia..... pp. 153-70 (Parts).
- *Roosevelt and Taft, The Philippines.....
- *Robinson, The Philippines..... pp. 282-313.

Suggestions: From the above reading bring out that a governor, appointed by the President of the United States, and a commission of seven members are in direct control of the islands. Point out in the discussion that while at present the commission makes all the laws not made by Congress, it is expected that in a few years there will be a legislature, the lower house of which will be elected by the people. There will also be two delegates selected by this legislature to represent the islands in the Congress at Washington. Further, it should be noted, there are provincial governments each having a governor, a treasurer, a supervisor, a secretary, and a prosecuting attorney. The duties of each are discussed in the references cited.

The government's scheme of educating the natives in order to make them capable of self-government should be discussed.

Lesson Unit III: Rice, sugar, and hemp are the chief agricultural products of the islands.

READING LIST:

- *Carroll and Jerome, Philippines..... pp. 196-207.
- *Chance, Little folks of many lands..... pp. 83-94.
- MacClintock, The Philippines..... pp. 42-45, 64-68.
- Knapp, Story of the Philippines..... pp. 208-19, 240-50.
- Youth's Companion series, Toward the rising sun.... pp. 104-14.
- *Wade, Our little Philippine cousin..... (Parts).
- Knox, Ceylon and India..... pp. 37-120.
- Miller, Philippine folklore stories..... (Parts).
- *Kirby, Aunt Martha's corner cupboard..... pp. 121-34.
- Carpenter, Australia..... pp. 153-206 (Parts).
- Herbertson, Australia and Oceania..... pp. 24-29.
- *Robinson, The Philippines..... (Parts).
- *Adams, Commercial geography..... pp. 174-77.
- *Trotter, Geography of commerce..... pp. 162-65.

Suggestions: Describe the methods employed by the natives in these industries, and also give a notion of the importance of the output of each. Refer to the discussion of rice culture in connection with the treatment of China (p. 66).

A STUDY OF THE HAWAIIAN ISLANDS.

Map Locations (to be taught first): Locate the group with respect to its advantageous position commercially. Locate Oahu, Hawaii, Molokai, Honolulu, Hilo; Mauna Loa.

Lesson Unit I. The climate, vegetation, and characteristic products of this region.

READING LIST:

- * Trotter, Geography of commerce..... pp. 166-69.
- * Adams, Commercial geography..... pp. 170-73.
- * Carpenter, America in Hawaii..... pp. 120-32.
- ** Carroll, Philippines..... pp. 208-26.
- Krout, Hawaiian Islands..... (Parts).
- Twombly, Hawaii..... pp. 13-28.
- Pratt, Australasia..... pp. 184-91, 192-202.
- Youth's Companion, Greater America..... pp. 148-55.
- Francis, Isles of the Pacific..... pp. 167-88.
- ** Wade, Our little Hawaiian cousin..... (Parts).
- * George, Little journeys (Hawaii and the Philippines)... pp. 1-87.
- Musick, Hawaii..... (Parts).
- * Kirby, Aunt Martha's corner cupboard..... pp. 61-75.
- Carpenter, Australia..... pp. 134-48.
- Herbertson, Australia and Oceania..... pp. 180-92.

Suggestions: Bring out here that the islands are conspicuous for high volcanic mountains and for fertile plains and valleys; that the climate, which is healthful and agreeable, is about ten degrees cooler than any other land in the same latitude, owing to the northeast trade winds; that the rainfall is copious; and that raw sugar is the staple product, though rice and bananas are the next most important crops.

The position of the Hawaiian Islands at the crossing-point of all the trade routes of the central Pacific (see map, advanced text, p. 154) puts them in close touch with America, Asia, and Australia. Discuss the advantages of this position. Discuss the probable effect of the opening of the Isthmian canal on Hawaii's commercial future.

Lesson Unit II: The history of the islands and their acquisition by the United States.

READING LIST:

- Krout, Hawaiian Islands..... (Parts).
- Twombly, Hawaii..... pp. 328-79.
- Youth's Companion, Greater America..... pp. 131-40.
- * Pratt, Australasia..... (Parts).
- Francis, Isles of the Pacific..... (Parts).
- * George, Little journeys (Hawaii and the Philippines)... pp. 11-18, 34-50.
- Alexander, Brief history of Hawaii..... (Parts).
- Carpenter, Australia..... pp. 127-34.
- * Carpenter, America in Hawaii..... (Parts).
- Kellogg, Australia..... pp. 418-31.

Suggestions: Discuss the details of the revolution which resulted in the resignation of Queen Liliuokalani, 1893; the formation of a provisional government; the attempt of President Cleveland to reinstate her and its failure, the organization of a republic under President Dole; the danger to the republic from the Royalist party; and the incidents leading up to the annexation by the United States, August, 1898. Then take up briefly a discussion of the form of the present government of the islands, bringing out the fact that its government closely resembles that of existing territories in having a governor and a corps of executive officers, a legislature of two branches, and a judiciary consisting of a supreme court, circuit court, and inferior courts; that Hawaii is entitled to a delegate in the House of Representatives, with the right of debate, but not of voting; and that the islands are under the tariff laws of the United States, so they have the same free trade with the several States that any State or Territory of the Union enjoys.

BOOK LIST.

NOTE OF EXPLANATION: The following are the books which have been referred to in Part II of the handbook. For convenience in ordering the list prices and publishers are given. In almost every case a considerable discount is allowed. The series which the teacher should purchase first and which is referred to in the preface is given at the end of this list.

- Adams, C. C. Textbook of commercial geography. \$1.30. Appleton.
- Adams, W. H. D. Warriors of the crescent. \$1.50. Appleton.
- Alexander, W. D. Brief history of the Hawaiian people; Brief history of the Philippines. ea. \$1.50. American Book Company.
- Allen, A. E. Children of the palm lands. 50c. Educational.
- Allen, T. G., and Sachtleben, W. L. Across Asia on a bicycle. \$1.50. Century.
- Andrews, Jane. Each and all; Seven little sisters; Ten boys. ea. 50c. Ginn.
- Angus, D. C. Eastern wonderland. 75c. Cassell.
- Arnold, E. J. Stories of ancient peoples. 50c. American Book Company.
- Arnold, S. A., and Gilbert, C. B. Stepping stones to literature; a third reader. 60c. Silver.
- Ashton, Mark. Azalim: a romance of old Judea. \$1.50. Page.
- Atherton, Edward, ed. Adventures of Marco Polo. 65c. Appleton.
- Ayrton, Mrs. M. C. Child life in Japan. 20c. Heath.
- Badlam, A. B. Views in Africa. See World and its people series.
- Baldwin, James. Fifty famous stories retold. 35c. American Book Company.
- Baldwin, James. Old Greek stories. 45c. American Book Company.
- Ballantyne, R. M. Erling the Bold. \$1. Nelson.
- Ballantyne, R. M. Gorilla hunters. \$1. Burt.
- Ballou, M. M. Footprints of travel. 80c. Ginn.
- Barr, Mrs. A. E. H. Michael and Theodora. 75c. Bradley.
- Bates, K. L. Spanish highways and byways. \$2.25. Macmillan.
- Beal, E. A. Foods and beverages. (Information reader No. 1.) 60c. Boston School Supply Company.
- Benedict, E. S. Stories of persons and places in Europe. \$1.25. Macmillan.
- Besant, Sir Walter. Story of King Alfred. 35c. Appleton.
- Bigelow, Poultney. The children of the nations. \$2. McClure.
- Bird, Robert. Joseph, the dreamer. \$1.50. Scribner.
- Bishop, Mrs. I. L. B. Korea and her neighbors. \$2. Revell.
- Blaisdell, A. F. Stories from English history. 40c. Ginn.
- Bonner, John. Child's history of Spain. 2 vols. \$2. Harper.
- Bosworth, G. F. Alfred the Great. 40c. Macmillan.
- Boulger, D. C. Belgian life in town and country. \$1.20. Putnam.
- Bouvet, Marguerite. Bernardo and Laurette. \$1. McClurg.
- Boyesen, H. H. Modern Vikings; Norseland tales; Boyhood in Norway. ea. \$1.25. Scribner.
- Bramhall, M. S. Wee ones of Japan. \$1.00. Harper.
- Brochner, Jessie. Danish life in town and country. \$1.20. Putnam.
- Brooks, E. S. Boy of the first empire. \$1.50. Century.
Chivalric days, \$1.25; Historic boys, \$1.20. Putnam.
Story of our war with Spain. \$1.50. Lothrop.

- Brooks, Noah. Marco Polo. \$1.50. Century.
- Browne, Maggie. Chats about Germany. 75c. Cassell.
- Bruce, C. Round Africa. 60c. Cassell.
- Bulfinch, Thomas. Age of fable. \$1.50. Lee.
- Bunker, Frank F. China. 20c. San Francisco State Normal School.
- Burrows, Guy. The land of the pygmies. \$3. Crowell.
- Butterworth, Hezekiah. Story of Magellan, \$1.50. Appleton; Traveler tales of China, \$1.50, Estes; Zig-zag journeys, Estes; Around the world, \$2; British Isles, \$1.50; In Europe, \$1.50; Northern lands, \$1.50; Classic lands; India, ea. \$1.50. Estes.
- By land and sea. See Companion series.
- Carpenter, E. J. America and Hawaii. \$1.50. Small.
- Carpenter, F. G. Asia, 60c.; Australia, 60c.; Europe, 70c. American Book Company.
- Carroll, S. W., and Jerome, H. L. Boys and girls of the Philippines. 60c. Morse.
- Chamberlain, J. F. How we are clothed; How we are fed. ea. 40c. Macmillan.
- Chance, L. M. Little folks of many lands. 45c. Ginn.
- Chase, Annie, and Clow, E. Stories of industry. 2 vols. ea. 40c. Educational.
- Church, A. J. Heroes of chivalry and romance, \$1.75; Stories from English history, \$1.25; Stories from the Bible, 2 vols. ea., \$1.25 ea. Macmillan.
- Pictures from Greek life and story. \$1.25. Putnam.
- Clement, E. W. Handbook of Modern Japan. \$1.40. McClurg.
- Clifford, H. W. Every-day occupations. (Information reader No. 3.) 60c. Boston School Supply Company.
- Coe, F. E. Modern Europe. See World and its people series.
- Cole, G. A. J. The Gipsy road. \$1.75. Macmillan.
- Compton, H. E. Indian life in town and country. \$1.20. Putnam.
- Cottin, Mme. S. R. Elizabeth; or, The exiles of Siberia. 25c. Hurst.
- Cox, Sir G. W. Tales of ancient Greece. \$1.25. McClurg.
- Coxland, N. Stories of the city of London. Allen, London.
- Cunningham, W. G. E. Young people's history of the Chinese. \$1. Revell.
- Dallin, C. M. Sketches of great painters. 90c. Silver.
- Davis, R. H. With both armies in South Africa. \$1.50. Scribner.
- Davis, S. M. H. Norway nights and Russian days. \$1.25. Fords.
- Dawson, W. H. German life in town and country. \$1.20. Putnam.
- Deveraux, Roy. Side lights on South Africa. \$1.75. Scribner.
- Dodge, M. M. Hans Brinker, \$1.50, Scribner; Land of pluck, \$1.50, Century.
- Doyle, A. C. The great Boer war. \$1.50. McClure.
- Du Chaillu, P. B. Lost in the jungle, \$1; Equatorial Africa, \$1.75; My Apingi Kingdom, \$1; Stories of the gorilla country, \$1, ea. Harper. Land of the long night, \$2; Ivan the Viking, \$1.50; In African forest and jungle, \$1.50, ea. Scribner.
- Eggleston, G. C. Strange stories from history. 60c. Harper.
- Ellis, George. Romola. 75c. Burt.
- Emery, M. S. How to enjoy pictures. \$1.50. Prang.
- Endicott, Myles. Stories of the Bible. 3 vols. ea. 60c. Educational.
- Everett. In fair Granada.
- Farmer, L. H. Boys' book of famous rulers. \$1.50. Crowell.
- Fenn, G. M. The Khedive's country. \$2. Cassell.
- Felde, A. M. Corner of Cathay. \$3. Macmillan.
- Firth, E. M. Stories of old Greece. 30c. Heath.
- Francis, B. The isles of the Pacific. 75c. Cassell.
- French, H. W. Lance of Kanana. \$1. Lothrop.
- Frith, Henry. The romance of engineering. \$1.25. Ward, London.

- Frost, Thomas. Modern explorers. \$1. Cassell.
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